



**COLORADO DEPARTMENT OF PUBLIC HEALTH
AND ENVIRONMENT
HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION**



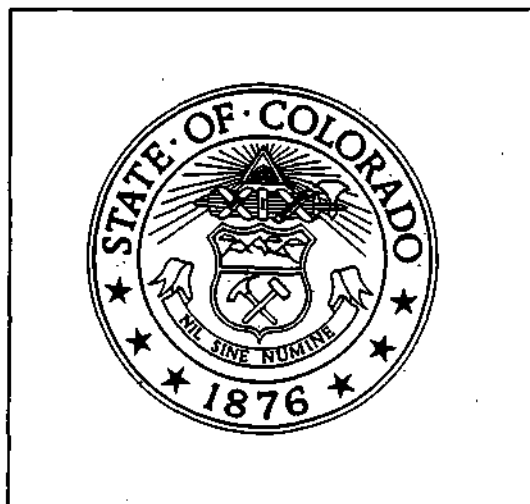
**FINAL ANALYTICAL RESULTS REPORT
FILLMORE AND CASCADE PCE SITE
COLORADO SPRINGS, COLORADO**

February 03, 2006

**COLORADO DEPARTMENT OF PUBLIC HEALTH
AND ENVIRONMENT
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**SITE INSPECTION - COMBINED ASSESSMENT
ANALYTICAL RESULTS REPORT**

**FILLMORE AND CASCADE PCE PLUME
COLORADO SPRINGS, COLORADO
CERCLIS ID # CO N000801801**



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1.0 INTRODUCTION

This Analytical Results Report (ARR) of the Fillmore and Cascade PCE Plume site (CERCLIS ID CO N000801801) located in Colorado Springs, Colorado, has been prepared under a cooperative agreement by the Colorado Department of Public Health and Environment (CDPHE) for the U.S. Environmental Protection Agency (EPA). Field activities conducted at the site during May and June 2004 followed the standard Site Inspection format and were conducted in accordance with EPA's Guidance for Performing Site Inspections under CERCLA, Interim Final (1992) and the Region VIII Supplement to the Site Inspection Guidance (U.S. Environmental Protection Agency (EPA) 1992; EPA 1993).

The Fillmore and Cascade PCE site consists of a volatile organic contaminant (VOC) ground water plume containing PCE (tetrachloroethene or perchloroethylene) and other contaminants, of unknown origin, located south of the intersection of East Fillmore Street and Cascade Avenue in Colorado Springs. This SI, prepared and conducted under EPA's Superfund Site Assessment Program, provides data that allowed for plume delineation.

Fieldwork at the site was conducted in the summer and early fall of 2004 and included sampling and non-sampling data collection. All fieldwork followed the applicable State of Colorado Standard Operating Procedures (CDPHE 1998). The sampling activities at the site included the collection of seven samples submitted for Laboratory confirmation analysis through the EPA Contract Laboratory Program (CLP) under Case Number 33004. These confirmation samples were intended to verify results from the field screening analysis of an additional 23 samples.

CDPHE submitted field screening samples to EPA's START contractor in Denver. START personnel utilized a Hapsite® GCMS (method Hapsite® 8260 modified) to screen the samples for volatile organic compounds VOCs. The instrument was calibrated to 5 (parts per billion) but generally detected compounds at concentrations as low as 1 ppb. Near real-time analytical results allowed for in-field decisions on where additional samples were obtained.

CDPHE hand delivered Hapsite® screening samples collected during both the May/June sampling event to the URS Operating Services – Operations Center (OC) in Denver, Colorado. CDPHE also submitted samples from 9 of the wells for laboratory confirmation through the Contract Laboratory Program (CLP) to Shealy Environmental Laboratories, located in South Carolina under proper chain of custody protocols.

Non-sampling activities included the collection of static water table elevation data and performance of a differential leveling survey for the determination of flow gradients in the shallow aquifer. In addition, CDPHE personnel conducted interviews with local property owners to verify that shallow ground water in the vicinity was not utilized for domestic or drinking purposes but was instead, restricted to use for lawn and garden irrigation.

Fieldwork for this SI followed the approach and procedures outlined in the approved Sample and Analysis Plan (SAP). The SAP was prepared to guide field operations and to outline the analytical objectives for the SI. The SI objectives were intended to delineate the Fillmore and Cascade PCE Plume through the collection of ground water, soil, and possibly soil gas samples. In addition, the SAP identified non-sampling data requirements during the SI. CDPHE prepared the SAP in accordance with EPA's Guidance for Performing Site Inspections under CERCLA, Interim Final (1992) and the Region VIII Supplement to the Site Inspection Guidance.

The main sampling effort planned for this SI involved the collection of 18 ground water samples from wells or borings installed utilizing a direct push device and/or auger installed temporary wells (Figure 4). In addition, CDPHE collected 4 opportunity ground water samples from existing domestic irrigation wells present within the study area.

The sampling team provided quality assurance/quality control samples consisting of field blanks, rinsate or equipment blanks, duplicate samples, and Matrix Spike/Matrix Spike Duplicate (MS/MSD) extra-volume water samples for internal laboratory Quality Assurance/Quality Control (QA/QC) purposes.

2.0 OBJECTIVES

This SI is intended to fulfill the following objectives:

- Delineation of the ground water plume;
- If possible, determine the source of the ground water contamination;

- Determine ground water flow direction and gradient in the vicinity of the site;
- Assess the need for indoor air sampling in areas overlying the plume; and,
- Determine if there are impacts from the site to ground water users proximal to the site through the collection of domestic well samples and a survey of well uses.

Ground water concentrations for PCE exceeding 50 µg/l underlying a residential area will trigger further investigation using soil gas or sub-slab sample collection in close proximity to ground water control points. These data will then be used in determining if there is a need for indoor air sampling.

3.0 BACKGROUND INFORMATION

3.1 LOCATION AND SITE DESCRIPTION

The Fillmore and Cascade PCE site is located near the center of Section 31, T. 13 S., R. 66 W., of the Colorado Springs Quadrangle, El Paso County, Colorado (U.S. Geological Survey (USGS) 1961). The site consists of a ground water solvent plume located near the intersection of Fillmore Street and Cascade Avenue in the City of Colorado Springs (Figure 1). The area of consideration extends from the north side of the K-Mart parking lot south to Van Buren Street at the southern boundary. The site is bounded by Nevada Avenue on the east and Beacon Street on the west (CDPHE 1996). The approximate site coordinates are 38° 52' 34.1976" N. latitude and 104° 49' 21.6732" W. longitude (USGS 1961).

Facilities present in the area, that have documented uses of hazardous materials include (Figure 2): Equiptech of Colorado that occupies the former Aircraft Mechanics Industries, Inc., (AMI) site, (Equiptech ceased operations in 1988 – chemicals utilized onsite included unknown quantities of chlorinated solvents, xylene, hydrogen-phosphate, and flourine), Jet Forms (printing company- wastes generated included spent fixer solution, spent photo plater (silver), spent ink (soy based) waste oil and fluorescent light tubes containing mercury), Screen Tech Graphics (metal parts painting located at 115 Talamine Court), Sullivan Shutters (home products production – inspection indicated that this facility was abandoned in 1999), Former Spot Shop Cleaners (dry cleaning facility located at 2920 Wood Avenue – wastes generated included chlorinated solvents, primarily PCE), KKTU (local television

station located at 3100 N. Nevada Avenue – No hazardous wastes currently generated but the former location of the Alexander Film Company), Penske Auto Center (an automotive maintenance shop located at 3020 N. Nevada St.- wastes generated included low level solvents detected in a waste water collection sump; however, past testing did not find evidence of a release at this location), Millennium Auto Craft (fabricated plate work manufacturer located at 3300 N. Nevada Avenue), Inter Connect Tech Incorporated (a small quantity generator located at 80 Talamine Court- spent copper, lead solder dross (TCLP lead), metal-bearing waste waters, corrosives, cyanide bearing plating solutions) and, Rocky Mountain Metal Finishers (a former electroplating, plating, polishing, anodizing and coloring facility located at 3525 N. Cascade Avenue) (U.S. EPA 1994).

Of the identified properties, the 3200 North Nevada Avenue property previously occupied by AMI Industries Inc. has a documented history of heavy industrial activity that included the utilization of PCE in processes conducted onsite.

Activities conducted at the AMI site began in 1928 when Alexander Industries, Inc., moved its subsidiaries, Alexander Film Company and Alexander Aircraft Company from Englewood, Colorado to the 3200 North Nevada Avenue Site. Aircraft Mechanics Inc. was founded in 1932 possibly through the purchase of property from Alexander Film Company and El Paso County.

During World War II, Aircraft Manufacturers, Inc., produced engine mounts, landing gears, and other airplane parts as well as alloy and steel forgings. Post WWII activities at the site included the production of refrigerator trucks, barrel trucks, and special airport equipment. Onsite industrial activities were almost continuous for 65 years and included metal plating, painting and solvent rinsing operations.

Aircraft Manufacturers Inc. changed its name to AMI Industries, Inc. in 1975 and conveyed the property to Craddock Development Company in 1981 but still continued industrial operations onsite. In 1984, AMI filed a petition for Chapter 11 reorganization. In 1985 AMI excavated and replaced the dirt floor of the onsite plating area with concrete (Stewart 1993).

In 1988, AMI concluded Chapter 11 proceedings by making final payments to creditors and receiving a court order that dismissed the case. AMI performed a site inspection of the property in 1992 and vacated the site in 1993. In addition, AMI performed a removal action in 1993 under a CDPHE approved Corrective Action Plan. Actions

included excavating contaminated soils and installation of a Soil Vapor Extraction (SVE) system to address PCE contamination in ground water underlying and migrating off of the property.

Other industrial operations in the vicinity of the Fillmore and Cascade PCE site identified in a 1993 Stewart Environmental Consultant's Inc. report prepared for the AMI Industries site indicate the potential for additional source areas unrelated to the AMI facility that may contribute to PCE contamination in the area. Those potential sources identified included a former plating shop that is rumored to have been located at 3012 N. Tejon St. as well as a dry cleaning operation located in the same vicinity (Stewart 1993). However, a Phase I Environmental Site Assessment performed by Geotechnical Services Inc., for the 3100 North Nevada Avenue parcel did not indicate the presence of a metals plating shop in this area. A review of telephone directories for the years 1923 through 1992 included in the Phase I did indicate the presence of a dry cleaning operation at the 3012 N. Nevada Avenue location (due to address changes, this address most likely corresponds to the current 3012 N. Tejon St. address). Based on the phone book records, Busy Bee Cleaners operated at this address from 1972 through 1982 while a 1986 phone book entry indicates that Mc Clean Dry Cleaners and Drapery operated at the same address (GSI 1994). Assuming that the infrastructure remained in place from one owner/operator to the next, it appears that the 3012 N. Nevada Avenue location housed dry cleaning operations for a minimum of 14 years.

3.2 SITE HISTORY AND PREVIOUS WORK

3.2.1 Previous Investigations

Ground water contamination in the area was identified in 1992 when AMI was monitoring ground water in the vicinity and detected several chlorinated compounds. AMI reported the results of their monitoring to CDPHE for further investigation. Initially, CDPHE concluded that the source of the materials might have originated with other industrial properties or industries in the area (Gazette Telegraph 1996).

Inorganic chemicals utilized at the AMI Industries site include those associated with the hard plating of chrome and nickel, cadmium and zinc. Some of the specific manufacturing practices had a high probability of contaminating site soils. These practices included operation of the site air cleaning system that vented air from the plating tanks. This cleaning system removed heavy metals from the air stream through absorption into rainwater. The system cleaned air from the plating tanks by scrubbing the heavy metals into a 55-gallon drum that contained rainwater. Since this system was connected to the roof drains, the fifty-gallon drum was prone to overflow during rain events. The overflow resulted in the contamination of soils in the vicinity of the site. Additional inorganic soil contamination in the plating area was attributable to spills and drips from plating tanks to the dirt floor of this area

that occurred from the beginning of plating operations in 1940 until 1985 when AMI Industries Inc., paved the floor with concrete (Stewart 1993).

Organic solvents were utilized onsite with soil and groundwater contamination most likely originating from the paint operations area onsite. Excavation activities conducted onsite as part of a Corrective Action Plan revealed the presence of a sump, a cistern, and a minimum of two exfiltration basins onsite (Stewart 1993). The sump contained a sludge material with PCE levels of 2,790 milligrams per liter (mg/L). Soils in close proximity to the cistern had PCE concentrations of 2,300 milligrams per kilogram (mg/kg). The sump, cistern and exfiltration basins may have been part of an industrial septic system that was used prior to AMI's connection to the North Suburban Sanitation District sewer system in 1959 (Stewart 1993b).

Potential sources and releases to the environment include metals-contaminated soils documented to depths between 16 to 22 feet below ground surface near the north-central portion of the property. Past reports indicate that PCE contamination was present near the central portion of the site at depths ranging from 8 feet and extending to the groundwater table (Stewart 1993b).

The corrective action plan submitted to CDPHE delineated the extent of onsite and possibly offsite contamination potentially attributable to past activities at the AMI site (Figure 4A). A review of the 1992 through 2000 Monitoring and Enforcement (M&E) data for the AMI site indicates that PCE levels in down gradient monitoring well MW - 19 declined from a high of 26 micrograms per liter ($\mu\text{g/L}$) in November of 1995 to a level of 8 $\mu\text{g/L}$ in May of 2000 after installation of the SVE treatment system in March 1996 (Stewart 1999, 2000). However, PCE levels in this down gradient-most well appear to fluctuate seasonally. PCE levels reported for November and February sampling periods are uniformly higher than the PCE concentrations reported for spring and late summer sampling episodes (Stewart 2000). A comparison of November PCE levels in MW-19 do not show a marked decrease in PCE levels from November 1992 to November 2000 with reported PCE levels of 26 $\mu\text{g/L}$ and 22 $\mu\text{g/L}$, respectively. The consistent PCE levels in down gradient ground water may be indicative of continued contribution of contamination from AMI subsurface sources to groundwater in the area.

A review of data submitted by Stewart Environmental Consultants Inc. led CDPHE to conclude that additional sources may be contributing to, or largely responsible for, PCE contamination in ground water located south of the intersection of East Fillmore Street and Cascade Avenue (Gazette Telegraph 1996). However, no fieldwork was performed to identify additional potential contributing sources.

Initially, CDPHE believed that the AMI Industries facility did not utilize PCE in any of its onsite processes (Gazette Telegraph 1996); however, subsequent investigations revealed that PCE was heavily utilized in numerous operations onsite. Reports indicate that PCE was utilized extensively onsite from the initiation of site activities until the site's closure in 1993 (Stewart 1993).

During the months of June through August 1996, personnel from CDPHE and the El Paso County Health Department as well as Stewart Environmental Consultants, Inc. collected ground water samples from monitoring and domestic irrigation wells present in the area of Fillmore and Cascade Streets. Results of the sampling indicated the presence of PCE and trichloroethene TCE concentrations in ground water up to 1,110 micrograms per liter ($\mu\text{g/L}$) and 29 $\mu\text{g/L}$, respectively. In addition, analysis of the samples indicated maximum concentrations of 1,1 - dichloroethene (1,1-DCE) of 34 $\mu\text{g/L}$.

Maximum PCE concentrations reported in the area included a high of 1,110 $\mu\text{g/L}$ in a monitoring located on Taylor Street approximately $\frac{1}{2}$ block east of Cascade Street. This sample was collected near the current location of CDPHE temporary well GW-19 (Figure 3). Samples collected from additional monitoring wells in the area also indicated lesser concentrations of PCE contamination present at a distance of $\frac{1}{2}$ mile to the southwest of this location.

3.3 SITE CHARACTERISTICS

3.3.1 Physical Geography

The Fillmore and Cascade PCE site is located approximately $\frac{1}{2}$ mile to the east of the Monument Creek drainage within the City of Colorado Springs at an elevation of approximately 6,100 feet above mean sea level (USGS 1980). Site topography slopes to the southwest and the topography is best described as gently sloping hills associated with river terraces present along the Monument Creek drainage. Surface water drainage, where not altered for transportation corridors follows the land slope to the southwest.

3.3.2 Geology

Bedrock units in the vicinity of the Fillmore and Cascade PCE site consist of the Upper Cretaceous-aged Fox Hills sandstone, Dawson sandstone, Laramie formation and Pierre Shale. To the north of the site, the Fox Hills Sandstone

overlies the Pierre Shale. The Fox Hills Sandstone is interbedded with shale and generally forms a ridge that stands up between lower areas of Pierre Shale and the Laramie Formation. Exposed elements of the Dawson sandstone, the upper Cretaceous-aged Laramie and Fox Hills sandstone form ridges and bluffs that are present approximately 1 mile north of the Fillmore and Cascade PCE site. The Pierre Shale forms the bedrock immediately under the site and consists of olive-gray shale and interbedded sandstone with a total thickness ranging from 960 to 1,460 meters (Trimble and Machette 1979).

The surficial units underlying the site consist of alluvial deposits associated with Upper Pleistocene-aged Louviers alluvium. The Louviers alluvium is comprised of stratified gravels, sands, silts and clays in terraces elevated as much as 21 meters above streambeds in the area. Near Monument Creek, the Louviers alluvium is described as bouldery to cobbly gravels that occupy the stream terraces associated with the creek drainage. The base of the Louviers deposits can be as deep as 9 meters below the present stream levels. In smaller tributary drainages the Louviers alluvium are comprised largely of sands (Trimble and Machette 1979).

3.3.3 Hydrogeology

In the Colorado Springs area the principal water table aquifers consist of unconsolidated alluvial deposits that are perennially saturated and of consolidated sedimentary rocks comprising the Dawson aquifer (Hiller and Hutchinson 1980). The unconsolidated aquifers occur along stream drainages and terraces associated with stream valleys and have a maximum depth of approximately 100 feet.

Ground water in the vicinity of the site occurs in the Louviers alluvial deposits at a depth of approximately 20 feet below ground surface (Hillier and Hutchinson 1980). Static water levels measured in monitoring wells installed onsite indicate a ground water flow gradient trending in a southwesterly direction from the study area toward Monument Creek (Stewart Environmental Consultants, Inc 1993). Static water level measurements and a site elevation survey conducted by CDPHE field personnel verified the southwesterly flow gradient (Figure 4). In addition, lithologic observations recorded during drilling activities indicated that shallow ground water occurs in unconsolidated Louviers alluvium overlying elements of the Pierre Shale; however, the depths of the Louviers alluvium encountered varied from 20 to 40 feet in thickness in the study area.

Water levels recorded during this SI indicated that the shallow ground water is present at depths of approximately 40 feet below ground surface (bgs) for those wells installed to the east of Cascade Avenue while those wells installed in the lower lying areas to the west of Cascade Avenue had static water levels of approximately 20 feet bgs.

3.3.4 Hydrology

Site topography indicates that the overland surface water gradient is directed to the southwest toward the Monument Creek drainage (USGS 1965). The annual mean discharge rate of Monument Creek as measured at the USGS gauging station number 07104000 located approximately 1.3 miles downstream of the Woodmen Valley road intersection and approximately 2 miles north west of the study area is 32.4 cubic feet per second (cfs); the highest annual mean discharge rate is 72.1 cubic feet per second (water years 1939-2000) (USGS 2000). Monument Creek near this gauging station has an upstream drainage area of approximately 204 square miles. The study area lies outside of the Monument Creek 500-year floodplain (McCain and Hotchkiss 1975).

The confluence of Fountain Creek and Monument Creek is located approximately 3.5 miles downstream of the Probable Point of Entry (PPE) for site contaminants. From this confluence, the drainage is named Fountain Creek and has an average annual discharge of 112 cfs as measured from the USGS gauging station located approximately 18 miles downstream of the site near the town of Fountain, Colorado (USGS 2000).

3.3.5 Meteorology

The Fillmore and Cascade PCE site is located in a semi-arid climate zone. The mean annual precipitation as totaled from the University of Delaware (UD) database is 14.99 inches. The net annual precipitation as calculated from precipitation and evapotranspiration data obtained from the UD database is 2.59 inches (University of Delaware, Center for Climate Research, Department of Geography 1986). The 2-year, 24-hour rainfall event for this area is 1.5 inches (Dunne, Thomas and Luna B. Leopold 1978).

4.0 ANALYTICAL DATA

4.1 DATA VALIDATION AND INTERPRETATION

The sample data collected during this investigation were reviewed using the Hazard Ranking System (HRS) guidelines for analytical interpretation (Office of the Federal Register 1990). As reported in the analytical results, Tables 2 through 6, elevated concentrations of contaminants, as noted by shaded values, are determined by sample concentrations based on the following:

- If the background analyte concentration is greater than its Instrument Detection Limit (IDL), and if the release sample analyte concentration is greater than its IDL, three times greater than the background, and five times greater than the blank concentration; or
- If the background analyte concentration is not greater than its IDL and if the release sample analyte concentration is greater than its IDL, greater than the background, and five times greater than the blank analyte concentration.

TechLaw Inc., Lakewood, Colorado, validated all data analyzed by the Unique Laboratory Services Analysis (ULSA) laboratories.

4.2 DATA QUALITY ASSESSMENT

A review of data submitted for Sample Delivery Group (SDG) No. H19G2 under Case Number 33004 indicated that the non-detect results for samples H19G4 (FC-GW-65) and H19G5 (FC-GW-51) were qualified due to preservation requirements not being met. Specifically, the laboratory measured pH values of 8 and 3 for samples FC-GW-65 and FC-GW-51, respectively. Proper preservation requires acidifying the samples with hydrochloric acid to a pH of less than 2.5 standard pH units. Based on the elevated pH, the non-detect results for all aromatics, ketones and non-halogenated compounds were rejected for these samples. However, a comparison of sample FC-GW-65 with its field duplicate FC-GW-33 indicates that there were no additional analytes detected in the properly preserved duplicate sample. In addition, a comparison of the concentrations of TCE (the only analyte detected) shows good correlation between duplicate TCE concentrations. TCE is the only analyte detected in both samples with the reported concentrations being comparable (the TCE relative percent difference (RPD) is 14% between these two samples). Analysis of FC-GW-33 does not indicate the presence of any additional VOC contamination at this location and verifies the non-detect for other VOC analytes in sample FC-GW-65.

Instrument calibrations, utilizing calibration standards containing target compounds and deuterated monitoring compounds (DMCs), were analyzed at the correct frequency. Both initial and continuing calibrations were performed according to method requirements and met all specified control limits listed in the Functional Guidelines. Two samples had initial calibration standards outside the differences specified in the functional guidelines. The laboratory qualified methyl acetate concentrations as undetected and estimated (UJ) for samples H19G3 and H19G8

because the relative standard deviations (%RSDs) of the relative response factors was greater than 30% (i.e. 31.9%).

In addition, DMCs were added to all samples and blanks and resulted in samples H19G5, H19G2DL, and H19G3DL, having percent recoveries (%Rs) outside of control limits.

Due to laboratory oversight, Matrix Spike/Matrix Spike Recoveries (MS/MSD) analyses were not performed for this SDG.

The laboratory detected slight contamination in a method blank that resulted in increasing sample quantitation limits for methylene chloride and PCE. With the exception of the aforementioned compounds, no additional qualification was required for blank contamination.

Field blank analysis indicated the presence of the organic analytes carbon disulfide (6.9 $\mu\text{g/L}$) and toluene (0.14 $\mu\text{g/L}$) in detectable concentrations. Toluene was also present in ground water sample FC-GW-10A (0.60 $\mu\text{g/L}$). Based on the presence of toluene in the sample FC-GW-10A at concentrations less than five times those detected in the field blank the presence of toluene in ground water sample FC-GW-10A is not confirmed by chemical analysis.

After a thorough review of the data generated by the laboratory analysis for this event, data evaluators concluded that the sample results were acceptable for use and met all contract requirements.

A comparison of PCE results for both the HAPSITE and CLP data indicate good agreement between the two data sets. CDPHE utilized only those results reported above the HAPSITE and CLP specified detection limits for correlation comparison purposes. The field duplicate samples exhibiting PCE concentrations in excess of the detection limits included FC-GW-10A, FC-GW-19 and FC-GW-51. The resulting correlation coefficient between HAPSITE and CLP values was 0.9995 indicating good agreement between the two data sets.

5.0 SOURCE CHARACTERIZATION

The documented waste source associated with the Fillmore and Cascade PCE site consists of volatile organic compound (VOC) contaminated ground water of unknown extent. The source of the previously identified ground water contamination is currently unknown. Samples collected from existing domestic irrigation wells and monitoring wells installed in the area indicate the presence of tetrachloroethene (PCE), trichloroethene (TCE), as

well as lesser concentrations of the PCE breakdown products, trichloroethane (TCA), dichloroethene (DCE) and dichloroethane (DCA). The contaminant plume appears to originate at a location northeast of the intersection of Fillmore Street and Cascade Avenue and encompasses an area of approximately 12.5 acres. The delineated portion of the plume extends from northeast of Fillmore and Cascade to a point south of West Harrison Street (Figure 4). In addition, documented ground water flow gradients, coupled with existing documentation outlining the extent of the AMI PCE plume, indicate a possible connection between the Fillmore and Cascade PCE plume and the AMI PCE plume (Figures 4 & 5).

PCE is primarily a dry cleaning solvent and historically has been used as a degreasing agent. TCE is a popular solvent in degreasing. 1,1,1-trichloroethene (1,1,1-TCA) is a solvent for resins, oils, waxes and a cold metal cleaning agent. 1,2-dichloroethane (1,2-DCA) is a solvent for fats, oils, resin, rubber and a penetrating agent in paints, varnish, soaps and scouring compounds. Cis-1, 2-dichloroethylene (Cis-1, 2-DCE) is a solvent for dyes and lacquers. Trans 1,2-dichloroethylene (Trans-1, 2-DCE) is a solvent for waxes and resins. 1,1-dichloroethylene (1,1-DCE) is a comonomer with vinyl chloride and is in adhesives and synthetic fibers. 1,1-dichloroethane (1,1-DCA) is a solvent for plastics, oils and also a cleaning agent (CDPHE, PA 2001).

With respect to chemical-specific carcinogenic properties, PCE, TCE and trans-1, 2, -DCE are currently under EPA review. 1,2-DCA is considered a probable human carcinogen while 1,1-DCE and 1,1-DCA are considered possible human carcinogens. Cis-1, 2-DCE, 1,1,1-TCA, toluene, ethyl benzene and xylene are not classifiable as to human carcinogenicity (U.S. EPA 2006).

5.1 SOURCE SAMPLE LOCATIONS

Scheduling of drilling activities, coupled with difficulties in obtaining site access, prevented CDPHE from isolating and identifying a specific source for the PCE contamination. While the owner of the 3100 N. Nevada Avenue property signed all pertinent site access documents allowing CDPHE site access for this investigation, continued delays in negotiating access with the lessee, the K-Mart Corporation, prevented CDPHE from accessing the K-Mart parking area in a timely fashion. Due to the difficulty in obtaining timely access, field personnel were unable to fully delineate the ground water contamination present in the area to the north and east of the intersection of Fillmore Street and Cascade Avenue.

CDPHE installed a sufficient number of temporary borings in the city right of way to delineate the horizontal extent of the plume in the neighborhood areas located to the south and west of the intersection of Fillmore and Cascade Streets. The utilization of field screening and laboratory analytical data allowed for the identification of areas of PCE ground water contamination within the neighborhood to the south of the intersection of East Fillmore Street and Cascade Avenue. The results of the analysis indicate that portions of the plume area warrant additional investigation through collection of soil-vapor or sub-slab soil gas sample collection.

5.2 SOURCE ANALYTICAL RESULTS

Samples of ground water collected from the shallow ground water aquifer in the vicinity of Fillmore and Cascade Avenue indicate a plume of PCE extending from a point of unknown origin located to the northeast of the Fillmore and Cascade Avenue intersection extending approximately 2,100 feet (approx 0.4 miles) to the southwest. Based on screening data, CDPHE was able to estimate a total areal extent for the plume of approximately 12.5 acres (Figure 4).

Of the 12.5 impacted acres of ground water, approximately 2.5 acres of residential property overlie a portion of the plume that exhibits PCE concentrations in excess of 50 $\mu\text{g/L}$.

PCE is the primary contaminant present within the plume with a maximum reported concentration of 474.8 $\mu\text{g/L}$ in well point FC-GW-19 situated midway along Taylor Street between Cascade Avenue and N. Tejon Street (Figure 4). Maximum concentrations of other analytes detected in ground water include TCE (17 $\mu\text{g/L}$), 1,1-dichloroethene (20.9 $\mu\text{g/L}$), chlorobenzene (0.99 $\mu\text{g/L}$), trans-1,2-Dichloroethene (15.84 $\mu\text{g/L}$), 1,1,1-Trichloroethane (15.54 $\mu\text{g/L}$), and low levels of benzene (3.72 $\mu\text{g/L}$).

6.0 GROUND WATER PATHWAY ANALYSIS

The Fillmore and Cascade PCE site overlies the unconsolidated alluvial deposits associated with the Louviers formation. Field observations indicate that alluvium underlying the site is comprised of stratified gravels, sands, silts and clays in terraces in the area. The alluvial material appears to be fairly homogenous in the vicinity of the site with alluvial lithologies remaining consistent between borings (Appendix B). Boring logs indicate an alluvial thickness of approximately 45 – 50 feet in those borings located east of Cascade Avenue. For those temporary borings placed to the west of Cascade Avenue, the alluvium ranges from 30 to approximately 40 feet in thickness.

Similarly, shallow ground water in the portions of the site located to the west of Cascade Avenue occurs at a depth of approximately 40 feet bgs while temporary borings installed to the east of Cascade Avenue indicate static water levels of approximately 20 feet bgs.

CDPHE collected ground water samples from the alluvial materials underlying the area. Based on its significant thickness and reported impermeability, the Pierre shale appears to form the base of the alluvial aquifer near the site and apparently prohibits the migration of contaminants downward. Instead, presumably due to the low permeability of the Pierre shale, site contamination migrates horizontally along the Louviers alluvium/Pierre shale contact in a downgradient direction towards Monument Creek.

Samples collected from ground water associated with the Louviers alluvium indicate the presence of VOC contamination encompassing an area of approximately 12.5 acres. The contamination apparently originates in a location to the north or northeast of the intersection of Fillmore Street and Cascade Avenue and migrates to the southwest. This migration path is consistent with the observed hydraulic gradient and PCE contamination appears to dissipate approximately 100 feet south west of the intersection of West Harrison Street and Concord Street (Figure 4).

According to the State Engineer's well data summary reports, there are 14 domestic wells located within a quarter mile of the site. The Colorado State Engineer's Office documents 678 domestic wells and 2 municipal wells within a four-mile radius of the site.

Ground water in the immediate area is utilized for the purposes of lawn and garden irrigation. Although records filed with the Colorado State Engineer's Office document domestic use for the 14 wells, a survey conducted by CDPHE and the El Paso County Health Department indicated that these wells are utilized solely for irrigation (CDPHE 1996).

Inquiries made during the May/June 2004 field sampling effort did not identify any households in the area that utilize ground water for domestic/drinking purposes. Interviews with local property owners that have resided in the neighborhood for decades indicated that all of the local residents have drinking water supplied by the Colorado Springs municipal water supply.

6.1 GROUND WATER SAMPLE LOCATIONS

During the sampling effort, CDPHE personnel collected a total of 4 ground water samples from existing irrigation wells situated in the low lying area to the west of Cascade Avenue along Wood, W. Polk, and Concord Streets. Samples FC-DW-01, 02, 03 and 04 were collected from wells situated down and cross gradient of the presumed direction of ground water flow from the intersection of Fillmore Street and Cascade Avenue. Field personnel collected sample FC-DW-01 from an irrigation well at 2724 Concord St. FC-DW-2 was collected at 119 W. Taylor St. FC-DW-03 collected from 2706 N. Concord defined the north and western boundary of the plume while sample FC-DW-04 collected from an irrigation well situated in the back yard of 2813 Concord also helped in determining the western-most boundary of the plume area.

CDPHE also collected ground water samples from temporary wells installed in the area south of the intersection of Fillmore Street and Cascade Avenue. CDPHE installed 18 temporary wells to the south of the Fillmore Street and Cascade Avenue intersection. The depths of these wells varied from approximately 20 to 50 feet below ground surface. CDPHE determined actual sample locations based on the local hydrogeology as well as the results from Hapsite screening analysis of samples collected from the temporary wells. The exact number of samples was determined based on analytical results obtained as the investigation progressed. Plume delineation continued in a down gradient direction as long as contaminant concentrations exceeded state ground water standards.

6.2 GROUND WATER ANALYTICAL RESULTS

Samples collected from the temporary wells indicated the presence of a contaminant plume that flows southwest from the intersection of Fillmore Street and N. Tejon St. and extends approximately 2,100 feet where it dissipates near Van Buren Street immediately north of the lined drainage canal (Figures 4 & 5). Samples collected from existing residential wells did not exhibit measurable levels of PCE; however the location of the wells assisted in determining the western-most extent of the plume boundary.

Samples collected from wells located along Taylor Street indicate that the portion of the plume exhibiting the highest concentration of PCE (474.8 $\mu\text{g/L}$) is located near well location FC-GW-19A (Figures 4 & 5). According to results compiled from the Hapsite screening data, PCE concentrations in wells located upgradient of this location exhibit lesser concentrations of PCE. The location of the highest PCE concentrations in the neighborhood south of all known potential sources suggests that the contamination has migrated from a formerly contributing source located to the north and east of FC-GW-19A.

6.3 ATTRIBUTION AND GROUND WATER TARGETS

On June 16, 2004, CDPHE surveyed the elevation of the temporary well casings (CDPHE referenced all elevations to an artificial datum of 1000') and measured the corresponding depth to water at each location (Figure 4). After analysis of the static water table elevations, CDPHE generated a potentiometric surface map that indicates a south-southwest flow gradient near the Fillmore Street and Cascade Avenue site.

Due to difficulty in obtaining site access in a timely fashion, CDPHE was unable to attribute the PCE contamination to a specific source; however, contaminant concentrations and flow gradients indicate that the contamination originates from a point located to the north and east of the intersection of Fillmore Street and Cascade Avenue. The source of the contamination may be attributable to the former AMI Industries facility or a source situated on or near the Kmart plaza complex. Due to delays in obtaining access and conflicts with the drilling subcontractor's schedule, CDPHE was forced to conclude drilling operations prior to definitively identifying the source of PCE contamination. However, the major goal of this investigation was to identify the levels of contamination present underlying the residential neighborhood to the south of the Fillmore Street and Cascade Avenue intersection. The results of samples collected from the network of temporary wells placed throughout the neighborhood to the south and west of the Fillmore Street and Cascade Avenue intersection defined the southern and western extent of the contaminant plume.

The approved SAP called for the delineation of the plume area where the PCE concentration exceeds 50 $\mu\text{g/L}$. According to the SAP, those areas overlying portions of the plume that exhibit PCE concentrations exceeding 50 $\mu\text{g/L}$ would be evaluated for further assessment utilizing soil vapor/sub-slab sampling protocols. This evaluation is intended to determine the potential for the intrusion of vapors into living spaces overlying, or adjacent to, the area of documented ground water contamination. Since the initial drilling contractor did not possess soil vapor sampling capabilities, CDPHE opted to delineate the plume and then evaluate the necessity for additional soil vapor sampling efforts based on the results of validated laboratory data, and the proximity of the PCE contamination in excess of the 50 $\mu\text{g/L}$ concentration near local residential properties.

A review of the field and laboratory data generated during this investigation indicates that the portion of the plume with a PCE concentration exceeding 50 $\mu\text{g/L}$ encompasses an estimated area of 2.5 acres (Figure 4).

Field observations made at the time of the installation and sampling of the temporary wells indicated that a majority of the houses located within the boundaries of the 50 $\mu\text{g/L}$ or greater concentration area were vacant. However, the

PCE plume extends from the 2.5 acre area to the southwest where it terminates in the neighborhood approximately 2000 feet to the southwest of the intersection of Fillmore Street and Cascade Ave. Based on the presence of PCE in groundwater in concentrations exceeding 50 $\mu\text{g/L}$, an additional assessment of the area utilizing indoor air sampling protocols may be warranted.

7.0 SURFACE WATER PATHWAY ANALYSIS

Runoff from the site can be expected to flow in southwesterly direction a distance of approximately 0.6 mile to Monument Creek. From the Probable Point of Entry (PPE) of site contaminants, to the Monument Creek Drainage the in-stream target distance limit continues an additional 3.5 miles downstream to the confluence with Monument Creek. From this confluence the target distance limit continues an additional 10.9 miles ending below Colorado Springs in Fountain Creek near the town of Widefield, Colorado (Figure 1).

The potential exists for contaminated ground water to impact Monument Creek via the ground water to surface water migration pathway. However, the extent of ground water contamination documented by this investigation is limited to the Louviers formation. Based on this investigation, site-related VOC contamination is not present in ground water proximal to the Monument Creek drainage. Approximately 16.8 miles of Palustrine and Riverine type wetland frontage exists on both banks of Monument and Fountain Creeks along the 15-mile stretch downstream from the probable point of entry into the drainage (USFWS 1974, 1975, and 1976).

The City of Colorado Springs receives a majority of its drinking water from surface water sources originating in the mountains to the west of the city. Water from these sources is distributed throughout the municipal system and serves a population of approximately 360,890 users. There are no known wells that supplement drinking water supplies proximal to the site (Colorado State Engineer's Office 2001).

The Colorado Department of Public Health and Environment, Water Quality Control Commission classifies the main stem of Monument Creek from the boundary of National Forest lands to the confluence with Fountain Creek and the main stem of Fountain Creek from a point immediately above its confluence with Monument Creek to the confluence with the Arkansas River as an Aquatic Life Warm Water Fishery 2, Recreation 2, and agriculture. Class 2 warm water segments are not capable of sustaining a wide variety of warm water biota, including sensitive species due to uncorrectable water quality conditions that result in substantial impairment of the abundance and diversity of species. Recreation Class 2 segments are suitable or intended to become suitable for recreational uses on or about

the water not included in the primary contact subcategory. Uses include, but are not limited to, fishing and other streamside or lakeside recreation. Waters receiving an agriculture sub categorization include those waters suitable or intended to become suitable for irrigation of crops usually grown in Colorado and are not hazardous as drinking water for livestock (CDPHE - CWQCC 1998).

Aquatic organisms present in the Monument Creek drainage consist of non-game species inclusive of fathead minnows, long nose dace, creek chubs and various species of darters. There are no human food chain organisms present in the drainage downstream of the site PPE to the terminus of the 15-mile in stream target distance limit (CDOW 2001).

8.0 SOIL EXPOSURE AND AIR PATHWAY ANALYSIS

Although the area is densely populated, the nature and distribution of contaminants does not readily lend to the exposure of individuals to contamination via the soil exposure pathway. The volatile nature of site contaminants indicates that they are not persistent in surficial soils and are therefore, unlikely to pose a threat via the soil exposure pathway.

Currently, there is no sampling data defining the presence or extent of contaminated soils in the vicinity of the site. The documented waste source associated with this site consists of contaminated ground water occurring at an approximate depths ranging from 20 to 40 feet bgs. Due to the depth of contamination and the lack of an identified source of materials near the ground surface, the probability of individuals coming into contact with site-related contaminants via the soil exposure pathway is low.

The presence of chlorinated solvents in ground water underlying residential properties in the vicinity of the Fillmore and Cascade PCE site may indicate the potential for exposure to nearby residents via the intrusion of vapors into overlying residential structures (i.e., vapor intrusion pathway).

The vapor intrusion pathway involves the volatilization of contaminants from a ground water plume or contaminated soil and the migration of those contaminants into overlying structures. EPA's Draft Vapor Intrusion Guidance (Table 3b, November 2002) indicates that PCE ground water concentrations at a depth of 20 feet with a clay-rich soil would have to exceed 54 $\mu\text{g/L}$ to cause a target indoor air concentration of 8.1 $\mu\text{g/M}^3$. According to the guidance, an indoor air PCE concentration of 8.1 $\mu\text{g/M}^3$ equates to a 10^{-5} risk level. Because the screening values presented in

this guidance are very conservatively derived, it is considered unlikely that the use of these values could result in a false negative. It should also be noted that the target indoor air concentration for PCE of $8.1 \mu\text{g}/\text{M}^3$ is based on a provisional toxicity value that has not been finalized or published in EPA's Integrated Risk Information System (IRIS) database.

Past studies of chlorinated contaminant plumes in the Denver area have established this pathway as a possible route of exposure to residents living over, or proximal to shallow chlorinated solvent ground water plumes. PCE and its associated breakdown products have relatively high vapor pressures that can readily promote the migration from ground water to subsurface soil and subsequently to indoor air spaces in structures overlying chlorinated solvent plumes.

Utilizing a conservative approach to data interpretation, CDPHE assumed that those residential areas overlying the portions of the plume exceeding $50 \mu\text{g}/\text{L}$ might be subject to impacts to indoor air from higher levels of contamination existing in the plume. The documented occurrence of PCE in concentrations exceeding $50 \mu\text{g}/\text{L}$ in the plume area extends approximately $1\frac{1}{2}$ blocks in a southwestwardly direction from the intersection of Fillmore and North Tejon Street.

Land use overlying the portion of the plume with concentrations exceeding $50 \mu\text{g}/\text{L}$ consists largely of light commercial/ industrial activities with some single-family residential properties and one abandoned multi-family apartment building. Approximately 5 single family housing units overlie the portion of the plume that exhibits chlorinated contamination equal to, or in excess of, $50 \mu\text{g}/\text{L}$; however, only 3 of those units appeared to be occupied during the time of this investigation.

Excepting those plume areas extending approximately $1\frac{1}{2}$ blocks southwestwardly from the intersection of Fillmore and North Tejon Street, PCE and total VOC concentrations of approximately 20 to $25 \mu\text{g}/\text{L}$ (Figures 4 & 5) underlie the single-family homes throughout a majority of the plume area. These VOC concentrations are present at depths ranging from approximately 25 to 45 feet below ground surface. Based on the available guidance, the depth to ground water and the concentrations observed during this investigation, it appears that a majority of the documented plume area presents a low potential for PCE and other VOCs to pose a risk via the vapor intrusion pathway.

Beyond the potential for indoor air contamination, the likelihood of contaminants becoming entrained in the air pathway is low. The nature of the source (contaminated ground water at depths exceeding 20 feet below ground surface (bgs)), combined with the lower concentrations of the VOCs present at these depths serve to reduce the likelihood of measurable releases of contaminants to nearby individuals and receptors via the air migration pathway.

9.0 SUMMARY

The Fillmore and Cascade PCE site is located approximately ½ mile to the east of the Monument Creek drainage within the City of Colorado Springs at an elevation of approximately 6,100 feet above mean sea level (USGS 1980). Site topography slopes to the southwest and the topography is best described as gently sloping hills associated with river terraces present along the Monument Creek drainage. Surface water drainage, where not altered for transportation corridors, follows the land slope to the southwest.

CDPHE conducted drilling at the site on May 11, through 20, 2004 as well as additional supplemental ground water sampling on June 16 and 17, 2004. CDPHE has utilized the analytical data along with static water level information to evaluate the aquifer flow gradients as well as the characteristics and distribution of ground water contamination. This information has enabled CDPHE to determine the presence and distribution of contaminant levels in ground water that may present a potential for the migration of contaminants from the aquifer to indoor air via the vapor intrusion pathway.

The vapor intrusion pathway involves the volatilization of contaminants from a ground water plume or contaminated soil and the migration of those contaminants into overlying structures. Past studies of chlorinated contaminant plumes in the Denver area have established this pathway as a possible route of exposure to residents living over, or proximal to shallow chlorinated solvent ground water plumes. PCE and its associated breakdown products have relatively high vapor pressures that can readily promote the migration from ground water to subsurface soil and subsequently to indoor air spaces in structures overlying chlorinated solvent plumes.

Utilizing a conservative approach to data interpretation CDPHE assumed that those residential areas overlying the portions of the plume exceeding 50 µg/L might be subject to impacts to indoor air from higher levels of contamination existing in the plume. The documented occurrence of PCE in concentrations exceeding 50 µg/L in the plume area extends approximately 1-½ blocks in a southwestwardly direction from the intersection of Fillmore and North Tejon Street.

Based on the available guidance, the depth to ground water and the concentrations observed during this investigation, it appears that a majority of the documented plume area presents a low potential for PCE and other VOCs to pose a human health risk via the vapor intrusion pathway.

Beyond the potential for indoor air contamination, the likelihood of contaminants becoming entrained in the air pathway is low. The nature of the source (contaminated ground water at depths exceeding 20 feet below ground surface (bgs)), combined with the lower concentrations of the VOCs present at these depths serve to reduce the likelihood of measurable releases of contaminants to nearby individuals and receptors via the air migration pathway.

PCE is present in a majority of the plume area in concentrations exceeding Maximum Contaminant Level (MCL) concentrations for drinking water. However, the risk that these concentrations pose to residents via ingestion is negated since CDPHE determined that no one in the area utilizes ground water for drinking or domestic purposes. In addition, samples collected from domestic irrigation wells in the area did not indicate the presence of VOC contamination in any of the wells sampled.

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**TABLE 1: SAMPLE TYPE LOCATION AND RATIONALE
FILLMORE AND CASCADE PCE PLUME INVESTIGATION**

Sample Type	Sample No.	Location	Rationale
IRRIGATION WELLS	FC-DW-01	2724 Concord St.	Monitor Existing Domestic Irrigation Well
	FC-DW-02	119 W. Taylor St.	Monitor Existing Domestic Irrigation Well
	FC-DW-03	2706 N. Concord St.	Monitor Existing Domestic Irrigation Well
	FC-DW-04	2813 N. Concord St.	Monitor Existing Domestic Irrigation Well
DIRECT-PUSH or AUGER- DRILLED GROUND WATER SAMPLES	FC-GW-10	Approx. 25' SW of entrance to Liquor Store at SW Corner of N. Tejon and Fillmore St.	Plume Delineation and Source Determination.
	FC-GW-10A	N. Tejon St. Approx. 100' South of Fillmore St. on west side of Street.	Plume Delineation and Source Determination.
	FC-GW-10B	N. Tejon St. Approx. 100' North of Taylor St. on west side of Street.	Plume Delineation and Source Determination.
	FC-GW-10C	Right of Way in front of 2828 N. Tejon St.	Plume Delineation and Source Determination.
	FC-GW-11	Alley between N. Tejon and Nevada Ave. Approx. 100' South of Fillmore.	Plume Delineation and Source Determination.
	FC-GW-12	South side of Taylor St. 30 paces east of Tejon St.	Plume Delineation and Source Determination.
	FC-GW-17A	Tejon and Cascade Ave. near SW Corner of Liquor store building.	Plume Delineation and Source Determination.
	FC-GW-19	South side of Taylor St. approx. 100' west of N. Tejon St.	Plume Delineation and Source Determination.
	FC-GW-19A	South side of Taylor St. approx. 100' east of N. Cascade Ave.	Plume Delineation and Source Determination.
	FC-GW-27	Mid-point of alley between Tejon and Cascade Ave. 53 paces South of Taylor	Plume Delineation and Source Determination.
	FC-GW-29	Intersection of alley and E. Polk St. across from the main elementary school entrance.	Plume Delineation and Source Determination.
	FC-GW-33	2711 Concord. Center of Drive Way off of alley behind house.	Plume Delineation and Source Determination.
	FC-GW-35	South side of intersection Tejon and Tyler.	Plume Delineation and Source Determination.
	FC-GW-36	55 paces east of Cascade on North side of Tyler St. in school bus parking area.	Plume Delineation and Source Determination.
	FC-GW-39	S.E. Corner of Wood and W. Tyler	Plume Delineation and Source Determination.
	FC-GW-42	NE Corner of Wood and Harrison	Plume Delineation and Source Determination.
	FC-GW-43	2614 Concord - On Street, 2' east of concrete apron, aligned with center of property.	Plume Delineation and Source Determination.
	FC-GW-51	2516B Concord St.	Plume Delineation and Source Determination.
QUALITY ASSURANCE/ QUALITY CONTROL SAMPLES	FC-GW-65	Duplicate of FC-GW-33.	Test repeatability of results.
	FC-GW-71	Field Blank	Test for introduction of contamination from sample collection and field procedures.

TABLE 2
FILLMORE AND CASCADE PCE - CLP ANALYTICAL RESULTS REPORT
Ground Water Samples - Volatile Organic Compounds - micrograms/liter (ug/l)
1 of 1

Sample I.D.	FC-GW-10A			FC-GW-19			FC-GW-27			FC-GW-33			FC-GW-51			FC-GW-65			FC-GW-71		
Sample Date	6/16/2004			6/16/2004			6/16/2004			6/16/2004			6/16/2004			6/16/2004			6/17/2004		
Sample Time	13:30			13:10			13:55			15:20			15:00			15:25			10:30		
Traffic Report Number	H19G2			H19G8			H19G3			H19G6			H19G5			H19G4			H19G7		
Location Description	100' South of Fillmore and Tejon St. on west side of St.			South Side of Taylor St. - approx. 100' west of intersection with N. Tejon St.			Midway on Alley running North-South between Taylor and E. Polk St.			Alley behind 2711 Concorde St.			Driveway in front of 2516 Concord St.			Duplicate of FC-GW-33			Field Blank		
Analyte	SQL		QUAL	SQL		QUAL	SQL		QUAL	SQL		QUAL	SQL		QUAL	SQL		QUAL	SQL		QUAL
Carbon Disulfide	2.5	ND		2.5	ND		2.5	0.074	J	2.5	ND		2.5	0.098	J	2.5	ND		2.5	6.90	
Chloroform	2.5	ND		2.5	4.1		2.5	0.19	J	2.5	ND		2.5	1.30	J	2.5	ND		2.5	ND	
Chloromethane	2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND	
Methylene Chloride	2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	ND	
Methyl tert-Butyl Ether	2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	0.11	J	2.5	ND		2.5	ND	
1,1-Dichloroethene	2.5	ND		2.5	ND		2.5	ND		2.5	ND		2.5	0.74	J	2.5	ND		2.5	ND	
2-Butanone	25.0	ND		25.0	ND		25.0	ND		25.0	ND		25.0	ND		25.0	ND		25.0	ND	
Benzene	2.5	ND		2.5	ND		2.5	0.054	J	2.5	ND		2.5	0.29	J	2.5	ND		2.5	ND	
Trichloroethene	0.5	17.00		0.5	3.30	DJ	0.5	0.24	J	0.5	0.15	J	0.5	1.40	J	0.5	0.13	J	0.5	ND	
Toluene	2.5	0.60	J	2.5	ND		2.5	ND		2.5	0.092	J	2.5	ND		2.5	ND		2.5	0.14	J
Tetrachloroethene	0.5	200.00	DB	0.5	330.00	DB	0.5	7.20	B	0.5	ND		0.5	7.60	J	0.5	ND		0.5	ND	
Chlorobenzene	0.5	0.99	J	0.5	ND		0.5	ND		0.5	ND		0.5	ND		0.5	ND		0.5	ND	

R- Reported value is rejected.

U = not detected. J = estimate because quality control criteria (QCC) were not met.

UJ = not detected and detection limit (DL) is estimated because QCC were not met.

B = estimate because analyte is present in laboratory blank.

BJ = estimate because analyte is present in laboratory blank but is also present in the sample at concentrations greater than 5 times those detected in the blank.

Shaded where analyte concentration exhibits significance above background.

ND-The material was analyzed for, but was not detected in concentrations above the sample quantitation limit or the detection limit.

NA-Not Analyzed

TABLE 3
FILLMORE AND CASCADE PCE PLUME - HAPSITE ANALYTICAL RESULTS
Groundwater Samples - Volatile Organic Compounds - micrograms/liter (ug/l)
1 of 3

Sample I.D.	FC-DW-01	FC-DW-02	FC-DW-03	FC-DW-04	FC-GW-10	FC-GW-10A	FC-GW-10B	FC-GW-10C	FC-GW-11
Sample Date	5/13/2004	5/13/2004	5/14/2004	5/14/2004	5/13/2004	6/22/2004	5/13/2004	5/31/2004	5/21/2004
Location Description	2724 Concord St.	119 W. Taylor St.	2706 N. Concord St.	2813 N. Concord St.	SW Entrance to Liquor Store	W. Side of N. Tejon 100' S. Of Fillmore	W. Side of N. Tejon 100' N. of Taylor	2828 N. Tejon St.	Alley btwn. Nevada and Cascade-100' S.
Analyte									
Vinyl Chloride	10U	10U	10U	10U	10U	10U	12.02	10U	10U
Chloroethane	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	1U	1U	1U	1U	9.68	1U	1U	1U	1U
1,1-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,2-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	1U	1U	1U	1U	1U	1U	1U	1U	1.07
1,1,1-Trichloroethane	1U	1U	1U	1U	8.43	1U	1U	1U	1U
Benzene	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene	1U	1U	1U	1U	1U	6.87	1U	1U	1U
1,1,2-Trichloroethane	1U	1U	1U	1U	1U	1U	1U	1U	1U
Toluene	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	5U	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	1U	1U	1U	1U	12.51	270.82	21.12	1U	3.55
1,1,1,2-Tetrachloroethane	1U	1U	1U	1U	1U	1U	1U	1U	1U
Ethylbenzene	1U	1U	1U	1U	1U	1U	1U	1U	1U
m- & p-Xylene	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
o-Xylene	1U	1U	1U	1U	1U	1U	1U	1U	1U

U = not detected.

TABLE 3
FILLMORE AND CASCADE PCE PLUME - HAPSITE ANALYTICAL RESULTS REPORT
Groundwater Samples - Volatile Organic Compounds - micrograms/liter (ug/l)
2 of 3

Sample I.D.	FC-GW-12	FC-GW-17A	FC-GW-19	FC-GW-19	FC-GW-19A	FC-GW-27	FC-GW-27	FC-GW-29
Sample Date	5/21/2004	5/12/2004	5/12/2004	6/22/2004	5/12/2004	5/13/2004	6/22/2004	5/20/2004
Location Description	S. Side of Taylor St. Approx. 30 paces east of N. Tejon St.	Alley between N. Tejon and Cascade Ave. near SW Corner of Liquor store building.	South side of Taylor St. approx. 100' west of N. Tejon St.	South side of Taylor St. approx. 100' west of N. Tejon St.	South side of Taylor St. approx. 100' east of N. Cascade Ave.	Mid-point of alley between Tejon and Cascade Ave. 53 paces South of Taylor	Mid-point of alley between Tejon and Cascade Ave. 53 paces South of Taylor	Intersection of alley and E. Polk St. across from the main elementary school entrance.
Analyte								
Vinyl Chloride	10U	10U	10U	10U	10U	10U	10U	10U
Chloroethane	1U	1U	1U	1U	11.67	1U	1U	1U
1,1-Dichloroethene	1U	20.9	1U	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	1U	15.84	1U	1U	1U	1U	1U	1U
1,1-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,2-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	1U	1U	1U	1U	1U	1U	1U	1U
1,1,1-Trichloroethane	1U	15.54	1.65	1U	1U	1U	1U	1U
Benzene	1U	3.72	1U	1U	1U	1U	1U	1U
Trichloroethene	1U	1U	1.09	1.09	4.8	1U	1U	1U
1,1,2-Trichloroethane	1U	1U	1U	1U	1U	1U	1U	1U
Toluene	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	1U	27.2	474.8	251.8	58.86	51.62	17.94	1U
1,1,1,2-Tetrachloroethane	1U	1U	1U	1U	1U	1U	1U	1U
Ethylbenzene	1U	1U	1U	1U	1U	1U	1U	1U
m- & p-Xylene	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U
o-Xylene	1U	1U	1U	1U	1U	1U	1U	1U

U = not detected.

TABLE 3
FIILLMORE AND CASCADE PCE PLUME -HAPSITE ANALYTICAL RESULTS REPORT
Groundwater Samples - Volatile Organic Compounds - micrograms/liter (ug/l)

3 of 3

Sample I.D.	FC-GW-33	FC-GW-33	FC-GW-35	FC-GW-36	FC-GW-39	FC-GW-42	FC-GW-43	FC-GW-51
Sample Date	5/14/2004	6/22/2004	5/20/2004	5/20/2004	5/20/2004	5/20/2004	5/20/2004	5/14/2004
Location Description	2711 Concord. Center of Drive Way off of alley behind house.	2711 Concord. Center of Drive Way off of alley behind house.	South side of intersection Tejon and Tyler.	55 paces east of Cascade on North side of Tyler St.	S.E. Corner of Wood and W. Tyler	NE Corner of Wood and Harrison	2614 Concord - On Street, 2' east of concrete apron, aligned with center of property.	2516B Concord St.
Analyte								
Vinyl Chloride	10U	10U	10U	10U	10U	10U	10U	10U
Chloroethane	1U	1U	1U	1U	1U	1U	1U	1U
1,1-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U
trans-1,2-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U
1,1-Dichloroethane	5U	5U	5U	5U	5U	5U	1U	5U
cis-1,2-Dichloroethene	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	1U	1U	1U	1U	1U	1U	1U	1U
1,1,1-Trichloroethane	1U	1U	1U	1U	1U	1U	1U	1U
Benzene	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene	1U	1U	1U	1U	1U	1U	4.36	1U
1,1,2-Trichloroethane	1U	1U	1U	1U	1U	1U	1U	1U
Toluene	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	1U	1U	1U	1U	1U	1U	27.32	2.19
1,1,1,2-Tetrachloroethane	1U	1U	1U	1U	1U	1U	1U	1U
Ethylbenzene	1U	1U	1U	1U	1U	1U	1U	1U
m- & p-Xylene	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U
o-Xylene	1U	1U	1U	1U	1U	1U	1U	1U

U = not detected.

Figure 1

Site Location
And
Area of Influence
Map

Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division

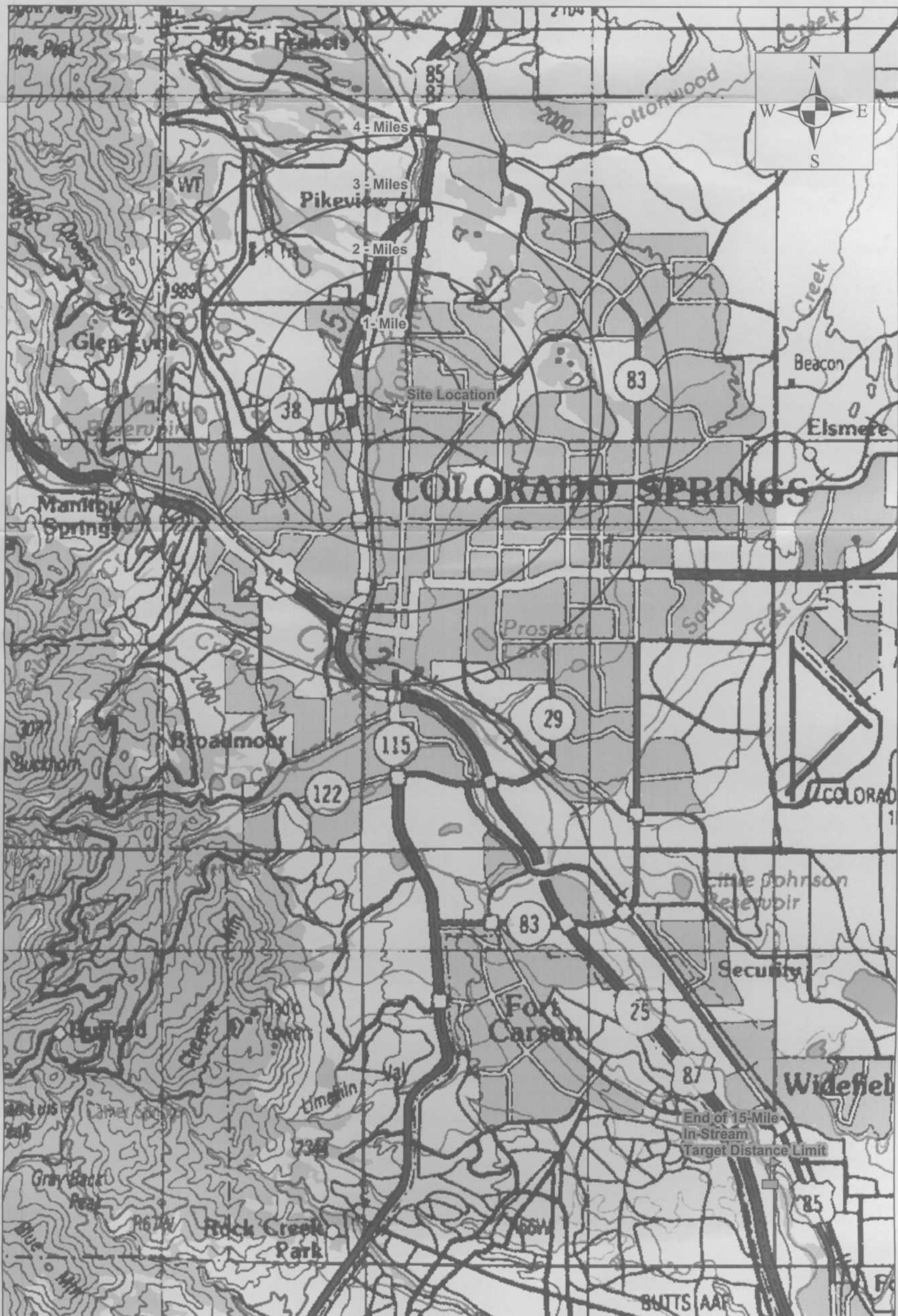




Figure 2

Regulated Facility Location Map

Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division

0 0.04 0.08 0.16 0.24 0.32 Miles

Figure 3

AMI Ground Water Sample Results Map

Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division



Figure 3A

CDPHE
Sample and
Boring Location
Map

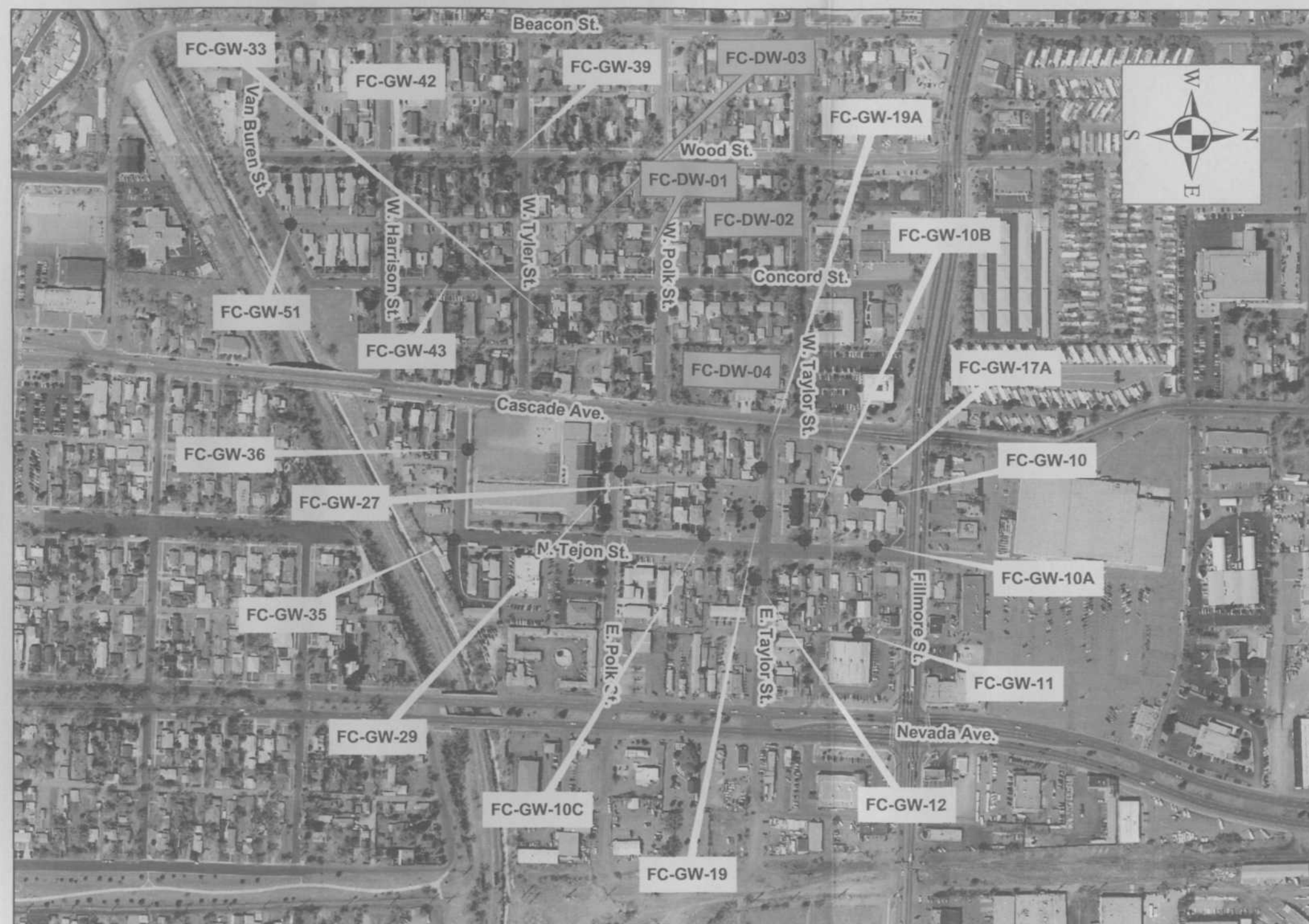
Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division



0 45 90 180 270 360
Meters

Figure 4

Approximate
PCE Concentration
Contour Map

Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division



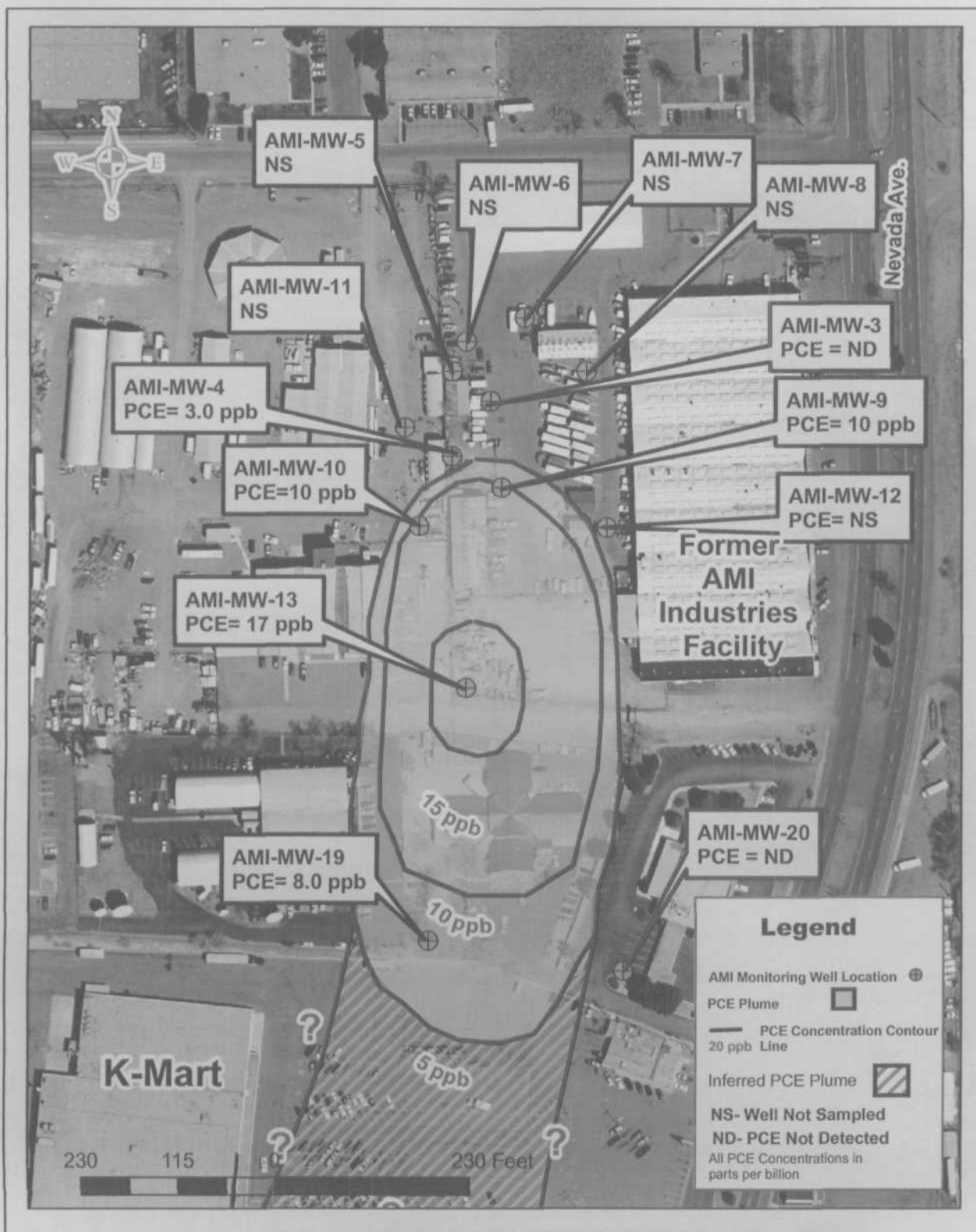


Figure 4A
 AMI Industries - PCE
 Plume Delineation
 Map *
 Fillmore and Cascade
 Street PCE
 Colorado Springs,
 Colorado



Colorado Department
 of Public Health
 and Environment

Hazardous Materials
 and
 Waste Management
 Division

* - Sample Concentrations as of May 2000.

Figure 5

PCE Plume Delineation Map

Fillmore and Cascade
Street PCE

Colorado Springs,
Colorado



Colorado Department
of Public Health
and Environment

Hazardous Materials
and
Waste Management
Division



APPENDIX A
PHOTO LOG

Color Photo(s)

The following pages
contain color that does
not appear in the
scanned images.

To view the actual images, please
contact the Superfund Records
Center at (303) 312-6473.



Photo 1: North facing photo of RGI personnel installing temporary boring FC-GW-17A.

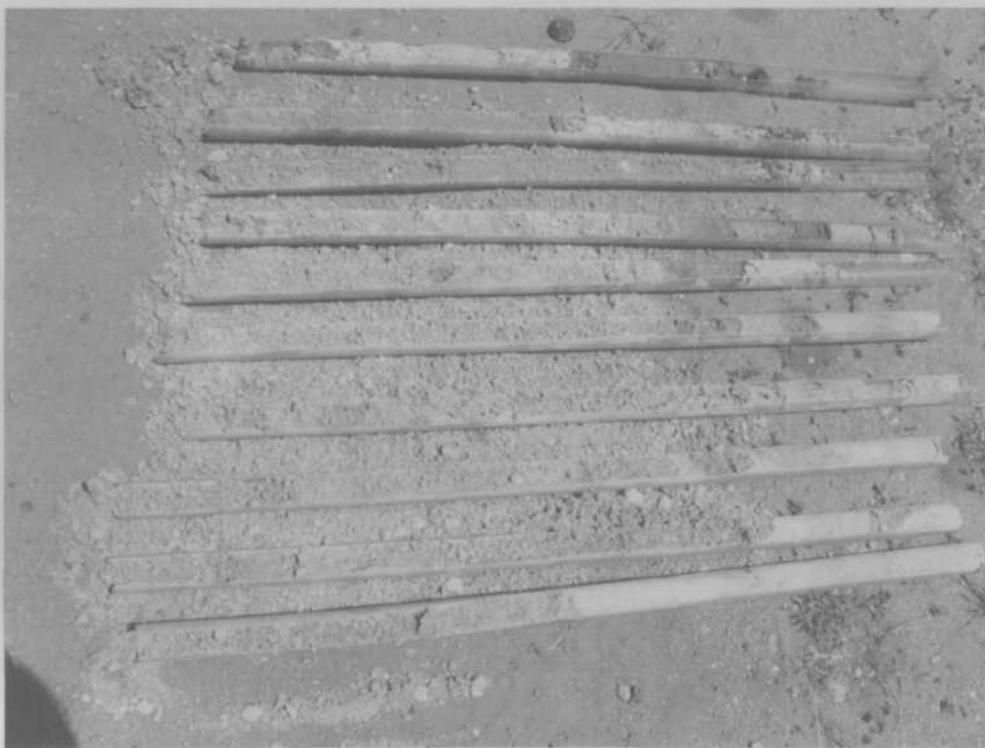


Photo 2: Photo of acetate liners and associated cores from FC-GW-17A.



Photo 3: South facing photo of RGI personnel installing boring FC-GW-10A.



Photo 4: East facing photo of RGI personnel installing boring FC-GW- 51.



Photo 5: Northwest facing photo of RGI personnel removing cuttings from temporary boring FC-GW- 10.

APPENDIX B
LITHOLOGIC LOGS

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-10				Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 1001.76	
Location Description: Located near entrance to the liquor store.				Date: 05/17/04		Status: Completed, Very Slow Producer	
Total Depth: 50.0'							
Logged By: M. O'Grady			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC		
Drilling Method: Auger			from: 39.5' to: 49.5' dia: 1"				
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'		

Recovery	Depth	P/D Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A		0	Lithology Graph	0 - 3' Fill material 3' - 4' Loose sand. Some gravel. Med. - coarse grained		
N/A	5	0		Orange-Brown gravelly sand.		
N/A	10	0		As Above		
N/A	15			As Above		
N/A	20			Sand, gravelly, poorly sorted, moist, Abundant Clay		
N/A	25			As Above		
N/A	30			Gravelly sand - pea sized brn-orange, moist, loose poorly sorted abundant clay.		
N/A	35					
N/A	40			Sand, medium -grained, loose, abundant clay, poorly sorted, minor gravel, moist to wet.		
N/A	45	16.8				
N/A		22.7		45-50 Sand, soft, wet Lt. Bm		
	50					

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-10A		Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 998.97	
Location Description: West Side of N. Tejon St. in right of way in front of 2922 N. Tejon St.		Date: 05/20/04		Status: Completed, Very Slow Producer	
Total Depth: 46.5'					
Logged By: M. O'Grady		Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger		from: 39.5' to: 49.5' dia: 1"			
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level	
N/A	0	0	Graph Lithology				
N/A	5	0		0-10' Orange-Brown gravelly sand.			
N/A	10	0		0-10' Medium Brown gravelly sand.			
N/A	15			As Above - some well-rounded cobbles.			
N/A	20			As Above			
N/A	25			As Above			
N/A	30			As Above			
N/A	35			Wet, sandy gravel at 38'			
N/A	40			As Above			
N/A	45	16.8					
N/A	50	22.7		45-50 Sand, soft, wet Lt. Bm			
				W.L. 41.74			
				T.D. 46.5'			

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-10B				Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 999.12	
Location Description: West Side of N. Tejon St. approx. 100' N. of Taylor				Date: 05/17/04		Status: Completed, Very Slow Producer	
Logged By: M. O'Grady				Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger				from: 39.5' to: 49.5' dia: 1"			
Drilling Company: Resource GeoScience Inc.				Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0	Graph Lithology			
N/A	5	0		0-10' Orange-Brown gravelly sand.		
N/A	10	0		As Above		
N/A	15			As Above		
N/A	20			As Above		
N/A	25			As Above		
N/A	30			As Above		
N/A	35					
N/A	40			As Above		
N/A	45					
N/A	50	16.8		45-50 Sand, soft, wet Lt. Brn		
		22.7				

W.L. 41.74

T.D. 50.5'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-10C		Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 995.83	
Location Description: West Side of N. Tejon St. in right of way in front of 2828 N. Tejon St.		Date: 05/20/04 Day: Hole:		Status: Completed,	
Total Depth: 50.0'					
Logged By: K. Mackey		Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger		from: 35' to: 50' dia: 1"			
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 33' to: 50'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0	Graph Lithology	0 - 5' Orange-Brown, gravelly sand.		<div style="display: flex; justify-content: space-between;"> W.L. 41.18 ▽ </div>
N/A	5	0		5' - 10' Orange-Brown gravelly sand.		
N/A	10	0		10' - 20' Medium Brown gravelly sand. few larger gravels 1/2 - 1" diam. Rounded - sub-mdd		
N/A	15			As Above		
N/A	20			As Above		
N/A	25			Silty sand at 28'		
N/A	30			30 - 35' As Above with some larger sand/gravels very coarse - well rounded.		
N/A	35			As Above		
N/A	40			As Above		
N/A	45			45-49 Well rounded gravel		
N/A	50	bkg. 3		50' Pierre Shale		

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-11				Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 998.42	
Location Description: Alley between n. Tejon and Nevada Ave. approx. 100 feet south of Fillmore.				Date: 05/19/04		Status: Completed, Very Slow Producer	
Total Depth: 50.0'							
Logged By: M. O'Grady				Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger 4 1/4"				from: 39.5' to: 49.5' dia: 1"			
Drilling Company: Resource GeoScience Inc.				Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0		Gravelly sand, med brown to orange, coarse-grained variable amounts of clay, loose, dry.		
N/A	5	0		As Above		
N/A	10	0		As Above		
N/A	15			As Above		
N/A	20			As Above		
N/A	25			As Above		
N/A	30			As Above		
N/A	35			30-35' As Above with increasing moisture.		
N/A	40			40-45' Sand, med.-coarse -grained, pebbly Orange - brown		
N/A	45	16.8		45+ Pierre Shale.		
N/A	50	22.7				
						<div style="text-align: right;"> W.L. 39.2' </div> <div style="text-align: right;"> T.D. 50' </div>

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-12		Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 997.19	
Location Description: South side of Taylor St. 30 Paces east of Tejon.		Date: 05/19/04		Status: Completed,	
				Total Depth: 45.0'	
Logged By: M. O'Grady		Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger 4 1/4"		from: 39.5' to: 49.5' dia: 1"			
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0		Gravelly sand, med brown to orange, coarse-grained abundant clay, loose, dry.		
N/A	5	0		Sand - As Above		
N/A	10	0		As Above		
N/A	15					
N/A	20			Gravelly sand, med brown to orange, coarse-grained moderate clay, loose, dry.		
N/A	25			As Above		
N/A	30			As Above		
N/A	35			30-35' As Above with increasing moisture.		
N/A	40			40-45' Sand, med.-coarse -grained, pebbly Orange - brown		
N/A	45			42+ Pierre Shale.		
N/A	50					

W.L. 34.74'

T.D. 45'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-27			Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 997.24	
Location Description: Mid-point of alley between Tejon and Cascade Ave. 53 paces South of Taylor.			Date: 05/12/04		Status: Completed, Very Slow Producer	
Logged By: M. O'Grady			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger 4 1/4"			from: 39.5' to: 49.5' dia: 1"			
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 34' to: 49.5'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A		0		0 - 3' Fill material 3' - 4' Med Brn-Orange Sand, Med-Coarse grained, minor Clay. Loose, dry.		
N/A	5	0		Orange-Brown gravelly sand. poorly sorted, abundant clay, small pebbles to 1/8" soft, loose, dry.		
N/A	10	0		As Above - moist, occasional pebble		
N/A	15			15 - 20' Sand, gravelly, poorly sorted, moist, Abundant Clay. Brown-Orange, Moist.		
N/A	20			20 - 25' As Above, Increasing Gravel in Very Coarse Sand. 22' gravel - 1/4" size. Poorly sorted, moist.		
N/A	25			29-30' Gravelly sand, Med. Grained Poorly sorted abundant clay. Brown-orange, loose, moist.		
N/A	30			30-35' As Above with increasing moisture.		
N/A	35					
N/A	40			40-45' Sand, med.-coarse -grained, pebbly Orange - brown		
N/A	45	16.8				W.L. 43.4
N/A		22.7		45-50 Sand, fine to medium-grained. Abundant clay - wet.		T.D. 48.5'
	50					

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-29		Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 993.96	
Location Description: Intersection of alley and E. Polk St. across from the main elementary school entrance.		Date: 05/18/04		Status: Completed	
K. Mackey		Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger		from: 30' to: 50' dia: 1/2"		Surf. - 35'	
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 33' to: 50'		Bentonite from: Surf. to: 2'	

Recovery	Depth	P/D Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0	Lithology Graph	NOTE: Well logged from cuttings 0 - 2' Road base (?) - silty sand Lt. Brown Course to Med. Grained Gravelly Sand Some Clay - Loose/dry		
N/A	5	0		As Above		
N/A	10	0		Orange-Med. Brown, Course to Med. Grained Gravelly Sand Medium amount of Clay - Loose/moist - wet		
N/A	15			As Above - Color shift to med. Brown - tan		
N/A	20			22' - Lt Bm-orange Sands and well rounded gravels, poorly sorted, 22'-24' Very Fine - coarse, gravelly, moderate clay/silt loose. 24' - 25' Color shifts to gray-brown, all else as above.		
N/A	25			25' - 30' larger cobbles/gravels in cuttings		
N/A	30			As Above - Slightly moist at 35'		
N/A	35			As Above		
N/A	40			As Above		
N/A	45			As Above		
N/A	50			As Above		
						W.L. 41.23'
						T.D. 49.8'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: 2711 Concord - FC-GW-33			Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 974.31	
Location Description: Center of Drive way off of alley behind house.			Date: 05/17/04		Status: Completed, Very Slow Producer	
Total Depth: 26.9'						
Logged By: M. O'Grady			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Direct Push			from: 12' to: 27' dia: 1"			
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 10' to: 27'		Bentonite from: Surf. to: 3'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0		Dark Brown Course to Med. Grained sand Minor Clay		
N/A	5	0				
N/A	10	0		Tan - Lt. Orange Coarse to Med. Grained Gravelly Sand.		
N/A	15	0				
N/A	20					
N/A	25			As above - Core is wet at 24'.		
N/A	30			29.5-31.5' - Very Coarse, rounded - sub-rounded Sandy Gravel.		
N/A	35			32' - Pierre Shale - Dk. Blue Siltstone		
	40		38' - 45' Pierre Shale			
	45					

W.L. 24.73'

T.D. 26.9'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-35		Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 998.98	
Location Description: South side of intersection Tejon and Tyler.		Date: 05/18/04		Status: Completed	
Total Depth: 50.0'					
K. Mackey		Well Screen: 0.01" Stotted PVC		Blank Casing: PVC	
Drilling Method: Auger		from: 30' to: 50' dia: 1/2"		Surf. - 35'	
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 33' to: 50'		Bentonite from: Surf. to: 2'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A		0	Graph Lithology	NOTE: Well logged from cuttings		
	5			Lt. Brown Course to Med. Grained Gravelly Sand Some Clay - Loose/dry		
N/A		0		As Above		
	10					
N/A		0		Orange-Med. Brown, Course to Med. Grained Gravelly Sand Medium amount of Clay - Loose/moist - wet		
N/A	15			As Above		
N/A	20			Sand, poorly sorted, Lt Brn-organic Very Fine - coarse, gravelly, moderate clay loose, moist 24 - 25' Color shifts to gray-brown, all else as above.		
N/A	25			25 - 30' larger cobbles/gravels in cuttings		
N/A	30			As Above		
N/A	35			As Above		
N/A	40			As Above		
N/A	45			As Above		
N/A	50			As Above		
						<div style="text-align: right;"> W.L. 39.91 T.D. 50.0' </div>

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-36				Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 989.82	
Location Description: 55 paces east of Cascade on North side of Tyler St. in school bus parking area.				Date: 05/17/04		Total Depth: 50.5'	
Logged By: M. O'Grady				Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger				from: 30' to: 50' dia: 1/2"			
Drilling Company: Resource GeoScience Inc.				Silica Sand from: 10' to: 27'		Bentonite from: Surf. to: 2'	

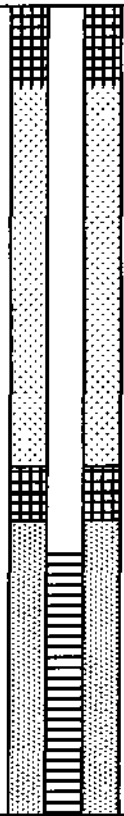
Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A		0		NOTE: Well logged from cuttings		
	5			Lt. Brown Course to Med. Grained Gravelly Sand Some Clay - Loose/dry		
N/A		0		As Above		
	10					
N/A		0		Orange-Med. Brown, Course to Med. Grained Gravelly Sand Medium amount of Clay - Loose/moist - wet		
	15					
N/A				As Above		
	20					
N/A				Sand, poorly sorted, Lt Brn-organic Very Fine - coarse, gravelly, moderate clay loose, moist		
	25					
N/A				As Above		
	30					
N/A				Sand, Fine-Coarse grained, Abundant Clay minor gravel, loose, moist		
	35					
N/A				As Above		
	40					
N/A			Clay - silty, Lt. Brn, wet			
	45					
N/A			45-50 Clayey Sand, soft, wet Lt. Brn			
	50					

W.L. 41.85'

T.D. 50.5'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-39			Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 969.03	
Location Description: S.E. Corner of Wood and W. Tyler			Date: 05/18/04		Status: Completed	
Logged By: K. Mackey			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Auger			from: 20' to: 30' dia: 1/2"			
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 19' to: 30'		Bentonite from: Surf. to: 3'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0	Graph Lithology	NOTE: Well logged from cuttings 0 -5' Lt. Brown-Orange Course to Med. Grained Gravelly Sand, Some Clay - Loose/dry		W.L. 21.9 T.D. 30'
N/A	5	0		As Above		
N/A	10	0		Orange-Med. Brown, Course to Med. Grained Gravelly Sand Medium amount of Clay - Loose/moist - wet		
N/A	15			As Above - Gravel very Coarse		
N/A	20			As Above		
N/A	25			As Above - MOIST AT 30'		
N/A	30					
N/A	35			32' - Pierre Shale		
N/A	40					
N/A	45					
N/A	50					

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: FC-GW-42			Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing:	
Location Description: NE Corner of Wood and Harrison			Date: 05/17/04		Total Depth: 23.95'	
Status: Completed, Very Slow Producer						
Logged By: K. Mackey		Well Screen: 0.01" Slotted PVC		Blank Casing: PVC		
Drilling Method: Direct Push		from: 12' to: 27' dia: 1"		from: Surf to: 14' dia: 1"		
Drilling Company: Resource GeoScience Inc.		Silica Sand from: 10' to: 27'		Bentonite from: Surf. to: 3'		

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
				0 - 1' Road Fill/Base		
1 1/4'		0		1-4' Dark Brown Course to Med. Grained sand		
	5			4 - 12' Tan - Lt. Orange Coarse to Med. Grained Gravelly, Silty, Sand.		
4 1/4'		0				
	10					
4 1/4'		0				
	15			No Recovery		
0 1/4'						
	20			16'-24' As above with some larger cobbles intermixed - Core is wet at 23.5'.		W.L. 22.01'
4 1/4'						T.D. 23.95'
	25			24' - 28' Coarse Orange-Brown Sandy Gravel Wet at this depth.		
2 1/4'						
	30			29 - 31' - Very Coarse, rounded - sub-rounded Sandy Gravel.		
2 1/4'				32' - Pierre Shale - Dk. Blue Siltstone		
1 1/4'						
	35					
	40					

NOTE: Lost Hole to 32' Due To Heaving Sands

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: 2614Concord - FC-GW-43			Project: Fillmore & Cascade PCE		Survey Elev. Ground Surface:	
Location Description: On Street, 2' east of concrete apron, alligned with center of property.			Date:05/17/04		Total Depth: 26.9'	
Status: Completed, Very Slow Producer						
Logged By: K. Mackey			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Direct Push			from: 12' to: 27' dia: 1"		from: Surf to: 7' dia: 1"	
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 10' to: 27'		Bentonite from: Surf. to: 3'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
1/4'		0		0-4' Dark Brown Course to Med. Grained sand		
	5			4 -8' Tan - Lt. Orange Coarse to Med. Grained Gravelly Sand.		
4/4'		0				
	10					
4/4'		0		8' - 29.5' As above		
	15					
4/4'						
	20					
4/4'				As above - Core is wet at 24'.		
	25					
2/4'						
	30			29.5-31.5' - Very Coarse, rounded - sub-rounded Sandy Gravel.		
2/4'				32' - Pierre Shale - Dk. Blue Siltstone		
	35					
1/4'						
	40					

W.L. 22.8'

T.D. 26.9'

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Well Number: 2516 Concord - FC-GW-51			Project: Fillmore & Cascade PCE		Survey Elev. Top of Casing: 966.98	
Location Description: Alley/Drive way in front of 2516B.			Date: 05/17/04		Status: Completed, Very Slow Producer	
Logged By: M. O'Grady			Well Screen: 0.01" Slotted PVC		Blank Casing: PVC	
Drilling Method: Direct Push			from: 12' to: 27' dia: 1"			
Drilling Company: Resource GeoScience Inc.			Silica Sand from: 10' to: 27'		Bentonite from: Surf. to: 3'	

Recovery	Depth	PID Reading	Graph Lithology	Lithology Description	Well Completion: Temporary Flush Mount	Water Level
N/A	0	0		0 - 2' Fill NOTE: Well logged from cuttings		
N/A	5	0		Lt. Brown Course to Med. Grained Gravelly Sand Minor Clay		
N/A	10	0		Tan - Lt. Orange Coarse to Med. Grained Gravelly Sand, minor clay. Pebbles to 3/4" Diameter. Moist loosely compacted.		
N/A	15					
N/A	20			As above - Core is wet at 20'.		
N/A	25					
N/A	30			29.5-31.5' - Very Coarse, rounded - sub-rounded Sandy Gravel.		
N/A	35			32' - Pierre Shale - Dk. Blue Siltstone		
	40			38' - 45' Pierre Shale		
	45					
	50					

W.L.
25.41

T.D.
45

APPENDIX C
ANALYTICAL DATA SHEETS

Hapsite Results - Fillmore and Cascade PCE Plume 05/13/04 - 05/20/04

UOS Hapsite Screening Results

Sample: FC-DW-01
 Dilution: 1
 Aquired: 5/13/2004 15:01:01

Project: Fillmore & Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-02
Dilution: 1
Aquired: 5/13/2004 15:17:47

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-03
 Dilution: 1
 Aquired: 5/14/2004 15:52:16

Project: fillmore
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-04
Dilution: 1
Aquired: 5/14/2004 16:09:13

Project: fillmore
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10
Dilution: 1
Aquired: 5/13/2004 16:03:23

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	9.68
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	8.43
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	12.51
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-17A
Dilution: 1
Aquired: 5/12/2004 13:26:40

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	20.9
156-60-5	trans-1,2-Dichloroethene	1	1	15.84
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	15.54
71-43-2	Benzene	1	1	3.72
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	27.2
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19
Dilution: 1,10
Aquired: 5/12/2004 13:41:53

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1.65
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	10	10	474.8
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19A
Dilution: 1
Aquired: 5/12/2004 13:57:02

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	11.67
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	4.8
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	58.86
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-27
Dilution: 1
Aquired: 5/13/2004 16:20:39

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	51.62
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-29
Dilution: 1
Aquired: 5/20/2004 8:33:40

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-33
Dilution: 1
Aquired: 5/14/2004 16:26:17

Project: fillmore
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-35
Dilution: 1
Aquired: 5/20/2004 8:53:17

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-36
 Dilution: 1
 Aquired: 5/20/2004 9:10:44

Project: Fillmore and Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-80-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-43
Dilution: 1
Aquired: 5/20/2004 9:42:42

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	4.36
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	27.32
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-42
 Dilution: 1
 Aquired: 5/20/2004 9:26:41

Project: Fillmore and Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-51
Dilution: 1
Aquired: 5/14/2004 16:42:55

Project: fillmore
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	2.19
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10A
Dilution: 1
Aquired: 6/22/2004 14:36:48

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	6.87
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
108-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	270.82
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10A
Dilution: 5
Aquired: 6/22/2004 16:39:44

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	5	50	50U
74-87-3	Chloroethane	5	5	5U
75-35-4	1,1-Dichloroethane	5	5	5U
156-60-5	trans-1,2-Dichloroethene	5	5	5U
75-34-3	1,1-Dichloroethane	5	25	25U
156-59-2	cis-1,2-Dichloroethene	5	5	5U
107-06-2	1,2-Dichloroethane	5	5	5U
71-55-6	1,1,1-Trichloroethane	5	5	5U
71-43-2	Benzene	5	5	5U
79-01-6	Trichloroethene	5	5	5U
79-00-5	1,1,2-Trichloroethane	5	5	5U
108-88-3	Toluene	5	5	5U
106-93-4	1,2-Dibromoethane	5	25	25U
127-18-4	Tetrachloroethene	5	5	145.8
630-20-6	1,1,1,2-Tetrachloroethane	5	5	5U
100-41-4	Ethylbenzene	5	5	5U
106-38-3				
106-42-3	m- & p-Xylene	5	5	5U
79-34-5	1,1,2,2-Tetrachloroethane	5	50	50U
95-47-6	o-Xylene	5	5	5U

UOS Hapsite Screening Results

Sample: FC-GW-11
 Dilution: 1
 Aquired: 5/21/2004 14:25:36

Project: Fillmore & Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1.07
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	3.55
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19
Dilution: 1
Acquired: 6/22/2004 15:29:09

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1.09
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethane	1	1	297.83
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19
Dilution: 5
Acquired: 6/22/2004 16:54:36

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	5	50	50U
74-87-3	Chloroethane	5	5	5U
75-35-4	1,1-Dichloroethane	5	5	5U
156-80-5	trans-1,2-Dichloroethene	5	5	5U
75-34-3	1,1-Dichloroethane	5	25	25U
156-59-2	cis-1,2-Dichloroethene	5	5	5U
107-06-2	1,2-Dichloroethane	5	5	5U
71-55-6	1,1,1-Trichloroethane	5	5	5U
71-43-2	Benzene	5	5	5U
79-01-6	Trichloroethane	5	5	5U
79-00-5	1,1,2-Trichloroethane	5	5	5U
108-88-3	Toluene	5	5	5U
106-93-4	1,2-Dibromoethane	5	25	25U
127-18-4	Tetrachloroethene	5	5	251.8
630-20-6	1,1,1,2-Tetrachloroethane	5	5	5U
100-41-4	Ethylbenzene	5	5	5U
108-38-3				
106-42-3	m- & p-Xylene	5	5	5U
79-34-5	1,1,2,2-Tetrachloroethane	5	50	50U
95-47-6	o-Xylene	5	5	5U

UOS Hapsite Screening Results

Sample: FC-GW-27
Dilution: 1
Aquired: 6/22/2004 17:09:32

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-8	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	17.94
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-33
Dilution: 1
Acquired: 6/22/2004 16:14:05

Project: Fillmore & Cascade
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-08-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
78-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethane	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-39
Dilution: 1
Aquired: 5/21/2004 14:56:46

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethane	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
158-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-02
 Dilution: 1
 Aquired: 5/13/04 15:17:47

Project: Fillmore & Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10
Dilution: 1
Acquired: 5/13/04 16:03:23

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	9.68
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	8.43
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	12.51
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-27
 Dilution: 1
 Aquired: 5/13/04 16:20:39

Project: Fillmore & Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	51.62
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19
Dilution: 1
Aquired: 5/12/04 13:41:53

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1.65
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	460.57
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19A
Dilution: 1
Aquired: 5/12/04 13:57:02

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	11.67
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	4.8
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	58.86
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-17A
 Dilution: 1
 Aquired: 5/12/04 13:26:40

Project: Fillmore/Guildner
 Analyst: Nathan Henry
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	20.9
156-60-5	trans-1,2-Dichloroethene	1	1	15.84
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	15.54
71-43-2	Benzene	1	1	3.72
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	27.2
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

Hapsite Results - Fillmore and Cascade PCE Plume 05/13/04 - 05/20/04

UOS Hapsite Screening Results

Sample: FC-DW-01
Dilution: 1
Aquired: 5/13/2004 15:01:01

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-02
Dilution: 1
Aquired: 5/13/2004 15:17:47

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-03
Dilution: 1
Aquired: 5/14/2004 15:52:16

Project: fillmore
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-DW-04
 Dilution: 1
 Aquired: 5/14/2004 16:09:13

Project: fillmore
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10
Dilution: 1
Acquired: 5/13/2004 16:03:23

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	9.68
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	8.43
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	12.51
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-17A
Dilution: 1
Acquired: 5/12/2004 13:26:40

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	20.9
156-60-5	trans-1,2-Dichloroethene	1	1	15.84
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	15.54
71-43-2	Benzene	1	1	3.72
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	27.2
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19
Dilution: 1,10
Aquired: 5/12/2004 13:41:53

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1.65
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	10	10	474.8
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-19A
Dilution: 1
Acquired: 5/12/2004 13:57:02

Project: Fillmore/Guildner
Analyst: Nathan Henry
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	11.67
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	4.8
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	58.86
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-27
Dilution: 1
Aquired: 5/13/2004 16:20:39

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	51.62
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-29
Dilution: 1
Aquired: 5/20/2004 8:33:40

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-33
Dilution: 1
Aquired: 5/14/2004 16:26:17

Project: fillmore
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-35
 Dilution: 1
 Aquired: 5/20/2004 8:53:17

Project: Fillmore and Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-36
Dilution: 1
Aquired: 5/20/2004 9:10:44

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-42
 Dilution: 1
 Aquired: 5/20/2004 9:26:41

Project: Fillmore and Cascade
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-43
Dilution: 1
Aquired: 5/20/2004 9:42:42

Project: Fillmore and Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	4.36
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	27.32
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3				
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-51
 Dilution: 1
 Aquired: 5/14/2004 16:42:55

Project: fillmore
 Analyst: Mark McDaniel
 Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	2.19
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-10C
Dilution: 1
Acquired: 5/21/2004 14:10:38

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
630-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3				
78-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
85-47-6	o-Xylene	1	1	1U

UOS Hapsite Screening Results

Sample: FC-GW-12
Dilution: 1
Acquired: 5/21/2004 14:41:07

Project: Fillmore & Cascade
Analyst: Mark McDaniel
Matrix: Water

CAS No.	Analyte Name	Dilution Factor	Reporting Limit	Result ug/L
75-01-4	Vinyl Chloride	1	10	10U
74-87-3	Chloroethane	1	1	1U
75-35-4	1,1-Dichloroethene	1	1	1U
156-60-5	trans-1,2-Dichloroethene	1	1	1U
75-34-3	1,1-Dichloroethane	1	5	5U
156-59-2	cis-1,2-Dichloroethene	1	1	1U
107-06-2	1,2-Dichloroethane	1	1	1U
71-55-6	1,1,1-Trichloroethane	1	1	1U
71-43-2	Benzene	1	1	1U
79-01-6	Trichloroethene	1	1	1U
79-00-5	1,1,2-Trichloroethane	1	1	1U
108-88-3	Toluene	1	1	1U
106-93-4	1,2-Dibromoethane	1	5	5U
127-18-4	Tetrachloroethene	1	1	1U
830-20-6	1,1,1,2-Tetrachloroethane	1	1	1U
100-41-4	Ethylbenzene	1	1	1U
108-38-3	m- & p-Xylene	1	1	1U
106-42-3	m- & p-Xylene	1	1	1U
79-34-5	1,1,2,2-Tetrachloroethane	1	10	10U
95-47-8	o-Xylene	1	1	1U

FULL SCAN Quantitation Report

Title: FC-GW-19

FULL SCAN DATA: C:\DATA\FILLMO-11062204\NH062218
 Acquired 8/22/2004 at 16:54:36
 This Quantitation 6/23/2004 at 9:38:15

Peak Search Method: C:\METHOD\BTEX_~1\BTEXPLUS.LSM
 PQUAN Library: C:\METHOD\BTEX_~1\BTEXPLUS
 Last Calibration 5/18/2004 at 14:12:41

Acquisition Method: C:\METHOD\BTEX_~1\BTEXPLUS.FSM
 Tune/Cat File: DEFAULT1
 Datafile title:
 FC-GW-19

5
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W = RT +/- (0.30.00 / 2 + RT * 0.005)
 Min Fit=0.600; Min Pur=0.600; Min Area=5000
 Width= 4-75 scans; Res= 10 scans; NLM=2.0

Q-Ion	Pred. RT.	Int. Std. Name	ret.tm.	TS	fit	purity	MS	area	ppb	Flag	%RFC
96	2:30.02	Fluorobenzene	2:31.56		1	0.986		839981	60		45.606
150	7:11.35	1,2-Dichlorobenzene-d4	7:13.99		0.996	0.962		1188304	60		35.377

Q-Ion	Pred. RT.	Analyte Name	ret.tm.	TS	fit	purity	MS	area	ppb	Flag
62	1:20.49	Vinyl Chloride	Not Found							
64	1:25.60	Chloroethane	Not Found							
98	1:38.89	1,1-Dichloroethane	Not Found							
96	1:48.06	trans-1,2-Dichloroethane	Not Found							
65	1:51.14	1,1-Dichloroethane	1:57.35		0.42	0.233		2490	0	Fit too low.
98	2:00.36	cis-1,2-Dichloroethane	Not Found							
62	2:13.66	1,2-Dichloroethane	Not Found							
97	2:19.48	1,1,1-Trichloroethane	Not Found							
78	2:27.01	Benzene	2:35.96		0.945	0.372		1199	0	Purity too low.
130	2:44.36	Trichloroethane	Not Found							
97	3:21.16	1,1,2-Trichloroethane	Not Found							
91	3:31.43	Toluene	Not Found							
107	3:47.80	1,2-Dibromoethane	Not Found							
129	4:02.13	Tetrachloroethane	4:04.22		0.99	0.98		363775	50.36	
131	4:25.64	1,1,1,2-Tetrachloroethane	4:18.56		0.578	0.508		6911	0	Fit too low.
91	4:42.89	Ethylbenzene	Not Found							
91	4:53.33	m- & p-Xylene	Not Found							
83	5:10.46	1,1,2,2-Tetrachloroethane	Not Found							
91	5:10.77	o-Xylene	Not Found							

FULL SCAN Quantitation Report

Title: FC-GW-27

FULL SCAN DATA : C:\DATA\FILLMO~1\062204\NH062219
 Acquired 6/22/2004 at 17:09:32
 This Quantitation 6/23/2004 at 9:38:15

Peak Search Method : C:\METHOD\BTEX_~1\BTEXPLUS.LSM
 PQUN Library : C:\METHOD\BTEX_~1\BTEXPLUS
 Last Calibration 5/18/2004 at 14:12:41

Acquisition Method : C:\METHOD\BTEX_~1\BTEXPLUS.FSM
 Tune/Cal File : DEFAULT1
 Datafile title:
 FC-GW-27

1
 Nathan Henry
 Fillmore & Cascade

W = RT +/- (0.30.00 / 2 + RT * 0.005)
 Min Fit=0.800; Min Pur=0.600; Min Area=5000
 Width= 4-75 scans; Res= 10 scans; NLM=2.0

Q-Ion	Pred. RT.	Int. Std. Name	ret.tm.	TS	fit	purity	MS	area	ppb	Flag	%RFC
96	2:30.02	Fluorobenzene	2:31.62		0.998	0.984		1014584	60		75.872
150	7:11.35	1,2-Dichlorobenzene-d4	7:12.85		0.997	0.977		1304363	60		48.598

Q-Ion	Pred. RT.	Analyte Name	ret.tm.	TS	fit	purity	MS	area	ppb	Flag
62	1:20.49	Vinyl Chloride	Not Found							
64	1:25.60	Chloroethane	Not Found							
98	1:38.89	1,1-Dichloroethene	Not Found							
96	1:48.06	trans-1,2-Dichloroethene	Not Found							
65	1:51.14	1,1-Dichloroethane	Not Found							
96	2:00.36	cis-1,2-Dichloroethene	Not Found							
82	2:13.86	1,2-Dichloroethane	Not Found							
97	2:19.48	1,1,1-Trichloroethane	Not Found							
78	2:27.01	Benzene	2:33.82		0.945	0.513		4844	0	Purity too low.
130	2:44.36	Trichloroethene	Not Found							
97	3:21.16	1,1,2-Trichloroethane	Not Found							
91	3:31.43	Toluene	Not Found							
107	3:47.80	1,2-Dibromoethane	Not Found							
129	4:02.13	Tetrachloroethene	4:04.28		0.983	0.968		142253	17.94	
131	4:26.64	1,1,1,2-Tetrachloroethane	4:18.61		0.576	0.576		1435	0	Fit too low.
91	4:42.89	Ethylbenzene	Not Found							
91	4:53.33	m- & p-Xylene	Not Found							
83	5:10.46	1,1,2,2-Tetrachloroethane	Not Found							
91	5:10.77	o-Xylene	Not Found							

FULL SCAN Quantitation Report

Title: FC-GW-33

FULL SCAN DATA : C:\DATA\FILLMO~1\062204\NH062216
 Acquired 6/22/2004 at 16:14:05
 This Quantitation 6/23/2004 at 9:38:14

Peak Search Method : C:\METHOD\BTEX_-1\BTEXPLUS.LSM
 PQAN Library : C:\METHOD\BTEX_-1\BTEXPLUS
 Last Calibration 5/18/2004 at 14:12:41

Acquisition Method : C:\METHOD\BTEX_-1\BTEXPLUS.FSM
 Tune/Cal File : DEFAULT1
 Datafile title:
 FC-GW-33

1
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 Fillmore & Cascade

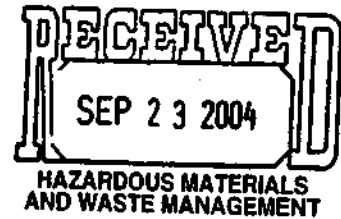
W = RT +/- (0.30.00 / 2 + RT * 0.005)
 Min Fit=0.600; Min Pur=0.600; Min Area=5000
 Width= 4-75 scans; Res= 10 scans; NLM=2.0

Q-Ion	Pred. RT.	Int. Std. Name	ret.tn.	TS	fit	purity	MS	area	ppb	Flag	%RFC
96	2:30.02	Fluorobenzene	2:31.56		1	0.982		1097298	60		90.21
150	7:11.35	1,2-Dichlorobenzene-d4	7:13.98		0.998	0.975		1315616	60		49.88

Q-Ion	Pred. RT.	Analyte Name	ret.tn.	TS	fit	purity	MS	area	ppb	Flag
62	1:20.49	Vinyl Chloride	Not Found							
64	1:25.60	Chloroethane	Not Found							
98	1:38.89	1,1-Dichloroethene	Not Found							
96	1:48.06	trans-1,2-Dichloroethene	Not Found							
65	1:51.14	1,1-Dichloroethane	Not Found							
96	2:00.36	cis-1,2-Dichloroethene	Not Found							
62	2:13.66	1,2-Dichloroethane	Not Found							
97	2:19.48	1,1,1-Trichloroethane	Not Found							
78	2:27.01	Benzene	Not Found							
130	2:44.36	Trichloroethene	Not Found							
97	3:21.16	1,1,2-Trichloroethane	Not Found							
91	3:31.43	Toluene	Not Found							
107	3:47.80	1,2-Dibromoethane	3:52.13		0.751	0.585		1096	0.26	
129	4:02.13	Tetrachloroethene	4:05.37		0.388	0.145		983	0	Fit too low.
131	4:25.64	1,1,1,2-Tetrachloroethane	Not Found							
91	4:42.89	Ethylbenzene	Not Found							
91	4:53.33	m- & p-Xylene	Not Found							
83	5:10.46	1,1,2,2-Tetrachloroethane	Not Found							
91	5:10.77	o-Xylene	Not Found							

URS OPERATING SERVICES

1099 18TH STREET
SUITE 710
DENVER, COLORADO 80202-1908
TEL: (303) 296-3523
FAX: (303) 291-8296



September 14, 2004

Ms. Sabrina Forrest
Site Assessment Manager
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 500, Mail Code: 8EPR-ER
Denver, Colorado 80202-2405

**SUBJECT: START2, EPA Region VIII, Contract No. 68-W-00-118, TDD No. 0402-0007,
Data Validation Report for Fillmore & Cascade PCE in Colorado Springs, Colorado**

Dear Sabrina:

Attached are copies of the Data Validation Reports for the Fillmore & Cascade PCE site in Colorado Springs, Colorado. The reports are for Case Number 33004 with Sample Delivery Group (SDG) H19G2. The data validation was performed by our subcontractor, TechLaw, Inc. Copies of the Data Validation Reports were also forwarded to Kevin Mackey with the Colorado Department of Public Health and Environment.

There were no problems encountered during the validation and review of the data. If you have any questions, please call me at 303-291-8247.

Very truly yours,

URS OPERATING SERVICES, INC.


Mark McDaniel
Chemist

cc: T. F. Staible/UOS w/o attachments
Kevin Mackey Colorado Department of Public Health and Environment
File/UOS

**REGION VIII
DATA VALIDATION REPORT
ORGANICS - VOA**

Case No. / TDD No.	Site Name		Operable Unit
33004 / 0404-0007	Filmore and Cascade PCE		
RPM/OSC Name			
Sabrina Forrest			
Contractor Laboratory	Contract No.	SDG No.	Laboratory DPO/Region
Shealy Environmental Services, Inc.	68-W-01-040	H19G2	

Review Assigned Date July 30, 2004 Data Validator Bill Fear
 Review Completion Date August 13, 2004 Report Reviewer Amy Ballow

Sample ID	Station Location	Matrix	Analysis
H19G2	FC-GW-10A	Water	CLP - Volatile Analyses (Low Concentration Water - OLC03.2)
H19G3	FC-GW-27		
H19G4	FC-GW-65		
H19G5	FC-GW-51		
H19G6	FC-GW-33		
H19G7	FC-GW-71		
H19G8	FC-GW-19		

DATA QUALITY STATEMENT

- () Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
- () Data are UNACCEPTABLE according to EPA Functional Guidelines.
- (X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes _____ No X

TPO Attention Required? Yes X No _____ If yes, list the items that require attention:

- The water samples H19G4 and H19G5 were not properly preserved for the volatile analyses. As a result, the aromatics, ketones, and non-halogenated compounds in these two unpreserved water samples were qualified as estimated (J) for the detected results and rejected (R) for the non-detected results. Additionally, the detected and non-detected halogenated compound results in these two samples were qualified as estimated (J/UJ). The laboratory also indicated that the sample cooler temperature taken by the laboratory at the time of receipt was 7.8°C.

ORGANIC DATA VALIDATION REPORT

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the "USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review," June 2001.

Raw data were reviewed for completeness and transcription accuracy onto the summary forms. Approximately 10-20% of the results reported in each of the samples, calibrations, and QC analyses were recalculated and verified. If problems were identified during the recalculation of results, a more thorough calculation check was performed.

Case No. 33004, SDG No. H19G2 consisted of seven water samples for CLP volatile organic analyses (low concentration water - OLC03.2).

The laboratory performed the required library search on all non-target sample components.

The following table lists data qualifiers added to the data. (Please see Data Qualifier Definitions, attached to the end of this report.)

Sample Number	Volatile Compound	Qualifier	Reason For Qualification	Review Section
H19G4, H19G5	All aromatics, ketones, and non-halogenated compounds	J/R	Preservation criteria not met	2
	Halogenated compounds	J/UJ		
H19G3, H19G8	Methyl acetate	UJ*	Initial calibration %RSD > 30%	4
	Dichlorodifluoromethane Trichlorofluoromethane		Continuing calibration %Ds exceeded criteria	
H19G5	2-Hexanone 4-Methyl-2-pentanone		DMC percent recovery below criteria	5
H19G3, H19G5, H19G8	Methylene chloride	U	Blank contamination	8
H19G4, H19G6	Tetrachloroethene			

* The non-detected results for 2-hexanone, and 4-methyl-2-pentanone in samples H19G4 and H19G5 were ultimately qualified as rejected due to preservation problems.

Method Number OLC03.2

Revision _____

**Organic Data Completeness Checklist
VOA****Quality Control Summary Package**

- P Surrogate Recovery Summary (Form II)
- P MS/MSD or LCS Summary (Form III)
- P Method Blank Summary (Form IV)
- P GC/MS Tuning and Mass Calibration (Form V)

Sample Data Package

- P Holding Times (CLASS Sample Traffic Reports/UOS Chain-of-Custody)
- P Organic Analysis Data Sheets (Form I)
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Mass Spectral Library Search for TICs

Standards Data Package

- NR Current List of Laboratory/Instrument Detection Limits
- P Initial Calibration Data (Form VI) for each instrument
- P Continuing Calibration Data (Form VII) for each instrument
- P Internal Standard Area Summary (Form VIII)
- P VOA Standards RICs
- P VOA Standards Quantitation Reports

Raw QC Package

- P BFB mass spectra and mass listings

Reagent Blank Data

- P Organic Analysis Data Sheets (Form I)
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- P EPA/NIH Library Search for TICs

Matrix Spike/Matrix Spike Duplicate/Blank Spike Data

- NA Organic Analysis Data Sheets
- NA RIC
- NA Quantitation Reports
- NA Mass Spectral Data
- NA EPA/NIH Library search for TICs

KEY:

- P = Provided in original data package
- R = Provided as resubmission
- NP = Not provided in original data package or as resubmission
- NR = Not required
- NA = Not applicable to this data package or analysis

1. DELIVERABLES

All deliverables were present as specified in the subcontract.

VOA: Yes X No

Comments: None.

2. HOLDING TIMES

All technical holding times and preservation criteria were met.

VOA: Yes No X

Comments: Samples H19G4 and H19G5 reported a pH of 8 and 3, respectively and are not considered to be preserved to a pH of less than 2. These unpreserved water samples were analyzed within 14 days from sample collection.

The following table lists the samples not meeting preservation criteria and qualifiers added to the data:

Samples	Preservation criteria not met	Compounds	Qualifiers
H19G4 H19G5	Samples not properly preserved	All aromatics, ketones, and non-halogenated compounds	J/R
		Halogenated compounds	J/UJ

The temperature at the time of sample receipt was outside the recommended temperature range of $4 \pm 2^{\circ}\text{C}$ with a temperature of 7.8°C . No action was taken because the Functional Guidelines do not provide specific guidance for temperature and the effect on the sample integrity is not known.

No other shipping or receiving problems were noted. Chain-of-custody, summary forms, and raw data were evaluated.

3. BFB PERFORMANCE RESULTS

The bromofluorobenzene (BFB) performance results were within the specified control limits. All appropriate BFB results were included.

VOA: Yes X No

Comments: BFB instrument performance checks were run for each 12 hours of analysis. Ion abundance criteria were met and were verified from the raw data.

4. INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS

Initial instrument calibrations were performed according to method requirements and met the specified control limits listed in the Functional Guidelines.

VOA: Yes___ No X

Comments: Initial calibration standards containing both target compounds and the deuterated monitoring compounds (DMCs) were analyzed at the correct frequency. The average relative response factors (RRFs) for the 14 compounds identified by the Functional Guidelines as poor responders were greater than or equal to 0.01. The RRFs for all other target compounds were greater than or equal to 0.05. The percent relative standard deviations (%RSDs) of the RRFs were less than or equal to 50% for the poor responders. Summary forms and raw data were evaluated.

The following table lists the initial calibration %RSD that was greater than 30% for the non poor responders and qualifiers added to the data:

Compound	%RSD	Associated Samples	Qualifiers
Methyl acetate	31.9	H19G3, H19G8	UJ

Continuing instrument calibrations were performed according to method requirements and met specified control limits listed in the Functional Guidelines.

VOA: Yes___ No X

Comments: Continuing calibration standards containing both target compounds and the DMCs were analyzed at the beginning of each 12-hour analysis period. The RRFs for the poor responders were greater than or equal to 0.01. The RRFs for all other target compounds were greater than or equal to 0.05. The percent differences (%Ds) between the initial calibration RRFs and the continuing calibration RRFs were less than or equal to 50% for the poor responders. Summary forms and raw data were evaluated.

The following table lists the continuing calibration %Ds that were greater than 30% for the non poor responders and qualifiers added to the data:

Compound	%Ds	Associated Samples	Qualifiers
Dichlorodifluoromethane	35.3	H19G3, H19G8	J/UJ
Trichlorofluoromethane	30.1		

5. DEUTERATED MONITORING COMPOUNDS

Surrogate compound recovery analysis was performed according to method requirements and results met specified control limits.

VOA: Yes___ No X

Comments: DMCs were added to all samples and blanks. Summary forms and raw data were evaluated.

The following table lists the samples with DMC percent recoveries (%Rs) outside control limits and the qualifiers added to the data:

Sample Number	DMC	%R	Compounds	Qualifiers
H19G5	2-Hexanone-d5	28%	2-Hexanone 4-Methyl-2-pentanone	UJ*
H19G2DL	Vinyl Chloride-d3 1,1-Dichloroethene-d2	48% 58%	None	None
H19G3DL	2-Hexanone-d5	36%		

*The non-detected results were ultimately rejected due to sample preservation.

No action was required for the above dilutions. H19GDL was not used for final results and only the result for tetrachloroethane was reported from H19G2DL.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/BLANK SPIKE

Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses and/or blank spike analyses were performed according to method requirements and results met recommended recovery and precision limits.

VOA: Yes___ No X

Comments: The laboratory case narrative indicated that due to an over sight MS/MSD analyses were not performed. No action was taken.

7. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to method requirements and results met specified control limits.

VOA: Yes X No___

Comments: Internal standard area counts did not vary by more than $\pm 40\%$ from the associated 12-hour calibration standard. The internal standard retention times did not vary more than ± 20 seconds from the retention time of the associated 12-hour calibration standards. Summary forms and raw data were evaluated.

8. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to method requirements and results met specified limits.

VOA: Yes ☐ No ☒

Comments: Method blank analyses were performed after the calibration standards and once for every 12-hour time period beginning with a BFB analysis. A storage blank (VHBLK44) was also analyzed. Summary forms and raw data were evaluated.

Contamination detected in the volatile blank that resulted in sample qualification is summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review," June 2001.

Blank Target Compounds

Blank ID	Contaminant	Concentration Found in Blank (ug/L)	Associated Samples	Concentration Found in Sample (ug/L)	Qualifier/ Adjustment
VBLK21	Methylene chloride	0.12	H19G5	0.19	0.50 U
	Tetrachloroethene	0.38	H19G4 H19G6	0.55 0.67	U
VBLK25	Methylene chloride	0.13	H19G3 H19G8	0.16 0.88	0.50 U 2.5 U

No action was required for additional blank contamination, as the sample results were non-detected or greater than the blank action level for the additional contaminants.

Tentatively identified compound (TIC) were not reported in the method blanks, storage blank, or instrument blanks.

9. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met contract requirements.

VOA: Yes ☒ No ☐

Comments: Sample relative retention times (RRTs) were within ± 0.06 RRT units of the standard RRT. Ions present in the standard mass spectrum at a relative intensity greater than 10% were present in the sample spectrum. Relative intensities of ions agreed within $\pm 20\%$ between standard and sample spectra.

The results for tetrachloroethene in samples H19G2 and H19G8 exceeded the calibration range in the original analyses and were flagged "E" by the laboratory. These samples were reanalyzed at 20x - 50x dilutions. The final results for tetrachloroethene in samples H19G2 and H19G8 were reported from the diluted analyses because these compounds were within the calibration range.

Sample H19G3 was also analyzed at a secondary dilution. However, no results were reported from this analysis as all results were within the linear calibration range in the initial undiluted analysis.

TICs were qualitatively assessed by a mass spectral library search and all TICs identified with a CAS number were qualified as "NJ" by the laboratory.

10. Additional Comments or Problems/Resolutions Not Addressed Above

VOA: Yes___ No X

Comments: None.

ORGANIC DATA QUALITY ASSURANCE REVIEW**Region VIII****DATA QUALIFIER DEFINITIONS**

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with both INORGANIC and ORGANIC DATA

- R - Reported value is "rejected." Resampling or reanalysis may be necessary to verify the presence or absence of the compound.
- J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.
- U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Element or compound was not detected.
- N J - Estimated value of a tentatively identified compound. (Identified with a CAS number.) ORGANICS analysis only.
- U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

11CA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G2

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-001

Date Received: 06/18/2004

Lab File ID: F1800901

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl Chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	2.5	U
79-20-9	Methyl Acetate	2.5	U
75-09-2	Methylene Chloride	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon Tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

TE 8/6/07

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G2

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-001

Date Received: 06/18/2004

Lab File ID: F1800901

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	17	
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	0.60	J
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	200 D 220	FB
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	0.99	J
100-41-4	Ethylbenzene	2.5	U
1330-20-7	Xylene (total)	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

Report PCE from 20x.

RF 8/6/04

FORM I LCV-2

OLC03.2

1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G2

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-001

Date Received: 06/18/2004

Lab File ID: F1800901

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
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LSA 9/15/04

FORM I LCV-TIC

OLC03.2

11CA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G2DL

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
Lab Sample ID: FF18009-001 Date Received: 06/18/2004
Lab File ID: F1800901D Date Analyzed: 06/22/2004
Purge Volume: 25.0 (ML) Dilution Factor: 20.0
GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	3.2	DJ
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	2.8	DJB
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	33	DJB
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	1.0	DJB
107-06-2	1,2-Dichloroethane	10	U

Report only PCE from
this analysis.

KSA 9/10/04

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G2DL

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-001

Date Received: 06/18/2004

Lab File ID: F1800901D

Date Analyzed: 06/22/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 20.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	12	D
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	100	U
108-88-3	Toluene	2.6	DJB
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	200	DB
591-78-6	2-Hexanone	100	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	3.9	DJB
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

Report only PUE from
this analysis

KA g/ubg

1LCF
 LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
 DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS EPA SAMPLE NO.

H19G2DL

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
 Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
 Lab Sample ID: FF18009-001 Date Received: 06/18/2004
 Lab File ID: F1800901D Date Analyzed: 06/22/2004
 Purge Volume: 25.0 (ML) Dilution Factor: 20.0
 GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)
 Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
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KSA 9/10/04

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G3

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-002

Date Received: 06/18/2004

Lab File ID: F1800902

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.074	J
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50 U	JB
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.19	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.054	J
107-06-2	1,2-Dichloroethane	0.50	U

of station

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G3

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-002

Date Received: 06/18/2004

Lab File ID: F1800902

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.24	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	7.2	B
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

R/S/6/4

11CF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G3

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-002

Date Received: 06/18/2004

Lab File ID: F1800902

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
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11					
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1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G3DL

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
Lab Sample ID: FF18009-002 Date Received: 06/18/2004
Lab File ID: F1800902D Date Analyzed: 06/21/2004
Purge Volume: 25.0 (ML) Dilution Factor: 5.0
GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl Chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	2.5	U
79-20-9	Methyl Acetate	2.5	U
75-09-2	Methylene Chloride	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon Tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

Do not use

Rf 8/6/04

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G3DL

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-002

Date Received: 06/18/2004

Lab File ID: F1800902D

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	1.0	DJ
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	24	DB
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	1.0	DJ
100-41-4	Ethylbenzene	2.5	U
1330-20-7	Xylene (total)	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

Do not use

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS EPA SAMPLE NO.

H19G3DL

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
Lab Sample ID: FF18009-002 Date Received: 06/18/2004
Lab File ID: F1800902D Date Analyzed: 06/21/2004
Purge Volume: 25.0 (ML) Dilution Factor: 5.0
GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)
Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
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Do not use

FORM I LCV-TIC

OLC03.2

TIC 8/6/04

11CA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G4

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-003

Date Received: 06/18/2004

Lab File ID: F1800903

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G4

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-003

Date Received: 06/18/2004

Lab File ID: F1800903

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.13	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.55	B
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G4

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-003

Date Received: 06/18/2004

Lab File ID: F1800903

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	9.45	0.97	J
02		UNKNOWN	10.34	0.89	J
03					
04					
05					
06					
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EPA SAMPLE NO.

Length: 20.0 (M)

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G5

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-004

Date Received: 06/18/2004

Lab File ID: F1800904

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	1.4	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	7.6	B
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G5

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
Lab Sample ID: FF18009-004 Date Received: 06/18/2004
Lab File ID: F1800904 Date Analyzed: 06/21/2004
Purge Volume: 25.0 (ML) Dilution Factor: 1.0
GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)
Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
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FORM I LCV-TIC

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G6

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-005

Date Received: 06/18/2004

Lab File ID: F1800905

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	0.50	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G6

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-005

Date Received: 06/18/2004

Lab File ID: F1800905

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.15	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.092	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.67	B
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G6

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-005

Date Received: 06/18/2004

Lab File ID: F1800905

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	9.45	0.69	J
02		UNKNOWN	10.34	0.81	J
03					
04					
05					
06					
07					
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FORM I LCV-TIC

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G7

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-006

Date Received: 06/18/2004

Lab File ID: F1800906

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl Chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	6.9	U
79-20-9	Methyl Acetate	0.50	U
75-09-2	Methylene Chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon Tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G7

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-006

Date Received: 06/18/2004

Lab File ID: F1800906

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.14	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
1330-20-7	Xylene (total)	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

DF 8/16/04

1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G7

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-006

Date Received: 06/18/2004

Lab File ID: F1800906

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
03					
04					
05					
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1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G8

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl Chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	2.5	U
79-20-9	Methyl Acetate	2.5	U
75-09-2	Methylene Chloride	2.5 U	0.88 JB
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	4.1	U
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon Tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G8

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl Chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	2.5	U
79-20-9	Methyl Acetate	2.5	U
75-09-2	Methylene Chloride	0.88	JB
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-Butyl Ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	4.1	
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon Tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G8

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907

Date Analyzed: 06/25/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 5.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	3.3	
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	210	EB
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
1330-20-7	Xylene (total)	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

1LCF
 LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
 DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS EPA SAMPLE NO.

H19G8

Lab Name: SHEALY ENVIRONMENTAL Contract: 68W01040
 Lab Code: SHEALY Case No.: 33004 Client No.: SDG No.: H19G2
 Lab Sample ID: FF18009-007 Date Received: 06/18/2004
 Lab File ID: F1800907 Date Analyzed: 06/25/2004
 Purge Volume: 25.0 (ML) Dilution Factor: 5.0
 GC Column: DB-624 ID: 0.18 (MM) Length: 20.0 (M)
 Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
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1LCA
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G8DL

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907D

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 50.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	25	U
79-20-9	Methyl Acetate	25	U
75-09-2	Methylene Chloride	7.6	DJB
156-60-5	trans-1,2-Dichloroethene	25	U
1634-04-4	Methyl tert-Butyl Ether	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
78-93-3	2-Butanone	65	DJ
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
110-82-7	Cyclohexane	25	U
56-23-5	Carbon Tetrachloride	25	U
71-43-2	Benzene	3.0	DJ
107-06-2	1,2-Dichloroethane	25	U

1LCB
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

H19G8DL

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907D

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 50.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
79-01-6	Trichloroethene	7.3	DJ
108-87-2	Methylcyclohexane	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-pentanone	250	U
108-88-3	Toluene	11	DJ
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	330	DB
591-78-6	2-Hexanone	250	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	14	DJ
100-41-4	Ethylbenzene	25	U
1330-20-7	Xylene (total)	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U

1LCF
 LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
 DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H19G8DL

Lab Name: SHEALY ENVIRONMENTAL

Contract: 68W01040

Lab Code: SHEALY Case No.: 33004

Client No.:

SDG No.: H19G2

Lab Sample ID: FF18009-007

Date Received: 06/18/2004

Lab File ID: F1800907D

Date Analyzed: 06/21/2004

Purge Volume: 25.0 (ML)

Dilution Factor: 50.0

GC Column: DB-624

ID: 0.18 (MM)

Length: 20.0 (M)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01					
02					
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